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UNDERSTANDING THE SCHOOLING AND LITERACY BELIEFS, BEHAVIORS, AND SELF-EFFICACY OF EARLY HEAD START PARENTS USING CONFIRMATORY FACTOR ANALYSIS:

A PILOT SURVEY STUDY

By

Rebecca Short

A Dissertation
Submitted in Partial Fulfillment
of the Requirements for
the Degree of Doctor of Education
in Curriculum and Leadership
Higher Education

Columbus State University
Columbus, Georgia

Summer 2013

Abstract

Educators need to have a better understanding of the home environment of diverse families. The low-income African American population, which is about 70% of the Early Head Start and Head Start population in the state of Georgia, possess and perform nonmainstream beliefs and behaviors that researchers and educators are unaware of and do not value at school (Compton-Lilly, 2009). Therefore, the purpose of this research endeavor was to develop a valid and reliable survey that measures parental behaviors and beliefs in literacy, schooling, and self-efficacy among Early Head Start and Head Start families. Items on the survey were developed to represent the population of EHS and HS families while also obtaining items illustrating significant beliefs and behaviors in the areas of literacy, schooling, and self-efficacy. Focus groups, cognitive interviews, and expert reviews were conducted to answer the first research question: Which items on the survey need to be modified or eliminated to increase content and criterion validity? These methods resulted in a 34-item survey that was further analyzed for factorial validity and reliability during a pilot survey. Analysis of the pilot survey was used to answer the second research question: What is the best fit model to measure parents' schooling and literacy beliefs, behaviors and self-efficacy? Confirmatory factor analysis and Cronbach's alpha revealed a valid and fairly reliable 20-item survey. EHS and HS programs can now implement this survey to gain a better understanding of their parents' beliefs and behaviors regarding literacy, schooling, and self-efficacy. This survey can also be used to enhance curriculum by providing authentic learning experiences and incorporate parents as resources during the learning process.

Acknowledgements

It is only by the Grace of God this work began and finished, so He deserves the upmost praise and thankfulness. His timing and the obstacles that arose during this process kept my focus on His plan for me, and I could not be more thankful.

My family and co-workers deserve to be acknowledged for their love and support during this process. The many words of encouragements and advice have not gone unnoticed and words cannot express my gratitude.

Lastly, I want to acknowledge my committee chair and other committee members for their support. I could not be more thankful they agreed to work with me through this process, and I am so grateful for their diligence and thoughtful feedback along the way.

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Chapter 1

Purpose of the Study

The purpose of this research endeavor was to develop a valid and reliable survey that measures parental behaviors and beliefs in literacy, schooling, and parental self-efficacy among Early Head Start and Head Start families. Researchers and educators need to have a better understanding of the world of diverse families, so they can better support parents in literacy learning in the home (Ordoñez-Jasis & Ortiz, 2006). Certain parental beliefs and behaviors regarding schooling and literacy, and levels of parental self-efficacy have been linked to high academic achievement (Astone & McLanahan, 1991; Bauman & Wasserman, 2010; Baumrind, 1967; Bruckman & Blanton, 2003; Burger & Landerholm, 1991; Dutch, 2003; Glascoe & Leew, 2010; Green, Walker, Hoover-Dempsey, & Sandler, 2007; Maduekwe & Adoesun, 2010; Pomerantz, Moorman, & Litwach, 2007; Prins & Toso, 2008; Raikes & Thompson, 2005; Steinberg, Lamborn, Dornbusch, & Darling, 1992), and surveys are ideal for asking individuals about their behaviors and beliefs due to sensitive and personal questions (Nardi, 2006).

The low-income African American population, which is about 70% of the Early Head Start and Head Start population in the state of Georgia, participate in nonmainstream schooling and literacy practices that researchers and educators are unaware of and do not value at school (Bruckman & Blanton, 2003; Compton-Lilly, 2009; Parker, Boak, Griffin, Ripple, & Peay, 1999). Questions on the survey will help researchers and educators identify literacy practices occurring within Early Head Start and Head Start homes. Early intervention can have positive effects on children's later educational success (Heckman, 1995); therefore, beginning the process of better understanding parental beliefs and behaviors with Early Head Start and Head Start parents is appropriate.

Researchers and educators tend to judge the credibility and diminish the literacy experiences occurring in diverse homes because the experiences do not fit mainstream literacy practices (Compton-Lilly, 2008; Compton-Lilly, Rogers, & Lewis, 2012; Whitehouse & Colvin, 2001). However, incorporating social and cultural contexts that highlight diversity in the classroom can enhance literacy learning (Compton-Lilly, 2008; Compton-Lilly, Rogers, & Lewis, 2012). Therefore, there is a need to work with diverse families to critically understand their literacy practices and beliefs and develop authentic relationships that will foster the communication between schools and parents and offer meaningful literacy activities to nonmainstream children (Compton-Lilly, Rogers, & Lewis, 2012; Elish-Piper, 1997; Whitehouse & Colvin, 2001). Developing a standardized valid and reliable measurement would help researchers better understand the low-income African American families in Early Head Start and Head Start programs. In 2008-2009, 80% of the children enrolled in Early Head Start and Head Start met the low-income eligibility requirement (Georgia Head Start, 2010). Also, about 70% of the children served in these programs are African American, while 21% are Caucasian, and 8% are other. In 2008 – 2009, approximately 75% of the families had single parents, 44% were unemployed, and only 18% had some college experience. These statistics define the diverse culture of Early Head Start and Head programs; therefore, validating the need to better understand these families and provide culturally relevant teaching practices and family literacy programs.

Rationale and Significance of the Study

Similar valid and reliable measurements currently available are designed for an interview setting where the researchers and participants discuss typical behaviors and beliefs regarding literacy, language, school, and parental self-efficacy (Bracken & Fischel**,** 2008; Drummond & Stipek, 2004; Dudley-Marling, 2009; Galper, Wigfield, & Seefeldt, 1997; Lynch, 2012; Parker, et al, 1999). The interview setting measurement can be expensive, time-consuming, and uncomfortable to participants due to its no anonymity (Dillman, 2007). Developing an anonymous survey to measure parental beliefs and behaviors can not only save time and money, but can also reduce the risk of self-report data and allow researchers and educators to collect data more representational of the population.

Developing a survey to measure parental beliefs and behaviors regarding schooling, literacy, and self-efficacy can also help researchers and educators close the achievement gap among low-income African American. Literacy and language difficulties children face in the classroom can be attributed to the discrepancy between home literacy experiences and school literacy experiences (Morrow, 1995). Lovelace and Wheeler (2000) determined many of these differences originate from language patterns, vocabulary, beliefs, and social interactions. Unfamiliar communication patterns, conflicting beliefs, and alienating assignments are contributing to low-income African American students' low performance. This survey can help researchers and educators identify Early Head Start and Head Start parents' behaviors and beliefs about schooling, literacy, language and self-efficacy. Researchers and educators can use this information to help children make connections from experiences at home to school by implementing pedagogy that is culturally relevant. When educators view their students' culture as a benefit to success and not a disadvantage, learning and achievement is increased (Milner, 2011). Teachers who have implemented culturally relevant pedagogy have seen success among African American students (Ladson-Billings, 1995). These teachers and others encourage collaborative learning, strive to create a community of learners, and build bridges between home and school (Compton-Lilly, 2009; Ladson-Billings, 1995).

Early Head Start and Head Start facilities can also use survey results to design family literacy programs that build on appropriate practices already being used in the home. Highlighting family literacy that occurs in diverse communities increases the appreciation of literacy within the home and motivates children at school (Whitehouse & Colvin, 2001). Family literacy programs targeting literacy and young children can be successful when they are designed around the culture of the families who are a part of the program (Elish-Piper, 1997Ordoñez-Jasis & Ortiz, 2006). Cookie-cutter programs that do not allow family input diminishes the potential family literacy programs can have with divers\ families (Elish-Piper, 1997). Survey results can help with the design of family literacy programs that are data-driven and based on the life experiences of Early Head Start and Head Start families. Designing programs around the results of the survey aligns with Ordoñez-Jasis and Ortiz (2006) recommendations for improving family literacy programs. These recommendations include identifying and valuing the parents' beliefs and behaviors, offering diverse reading materials, and using familiar language patterns.

Evolution of the Study

At the start of this research endeavor, my belief was Early Head Start and Head Start parents did not have appropriate beliefs and behaviors within the home. My previous goal of the study was to determine the inappropriate beliefs and behaviors regarding literacy, language, schooling, and parental self-efficacy among these parents. My hopes were Early Head Start and Head Start facilities would use the data to help the parents create a better home environment for their children; optimistically, leading to in an increase in academic achievement among students who come from low-income, diverse families.

However, as I examined the most recent research regarding low-income, diverse, and Early Head Start and Head Start parents, my viewpoint began to change. Scholars have presented research stating these families are engaging in suitable practices, and parents do have appropriate beliefs regarding schooling, literacy, and self-efficacy (Bracken & Fischel**,** 2008; Compton-Lilly, 2004, 2009, 2011, & 2012; Drummond & Stipek, 2004; Dudley-Marling, 2009; Galper, Wigfield, & Seefeldt, 1997; Lynch, 2012; Parker et al, 1999). Dudley-Marling (2009) determined Head Start parents were committed to their children’s success in school, and believed schooling can give their child a better life. Parker et al (1999) stated Head Start parents incorporate sensory learning and encourage creativity and curiosity in the home. Compton-Lilly (2004, 2009, 2011, & 2012) and Lynch (2012) identified many literacy behaviors low-income African American and Head Start families enact such as reading environmental print daily, writing names and lists, singing sounds, and frequent visits to the library. Lastly, Machilda, Taylor, & Kim (2002) concluded Head Start parents have some competence and confidence in their parenting and teaching skills within the home. These parents were better able to deal with the struggles of parenting and create a quality learning environment within the home.

The research also illustrates the importance of acknowledging these families' culture and incorporating their appropriate practices and beliefs within the classroom and family literacy programs. Therefore, my beliefs and goal of this study changed. Instead of determining what Early Head Start and Head Start parents are doing wrong within the home environment, I want to determine the appropriate beliefs and behaviors regarding literacy, language, schooling, and parental self-efficacy. Society has a mainstream view of which behaviors and beliefs are appropriate; however, I want to highlight other appropriate behaviors and beliefs of the population of Early Head Start and Head Start programs. Also, it is important to identify some of the parents' beliefs and behaviors that may not lead to school success. However, it is crucial to first develop a better understanding of the parents' current practices to foster communication and create a foundation for new learning of possible appropriate beliefs and behaviors. My hope is the valid and reliable survey developed in this research study will accomplish this task, and researchers and educators can begin to value these parents' current behaviors and beliefs.

Aim of the Study

The aim of this study is to develop a valid and reliable survey that measures parental behaviors and beliefs in literacy, schooling, language, and parental self-efficacy among Early Head Start and Head Start families. To obtain validity and reliability, many steps will be taken in the development of the survey (Blalock, 2007; Ouimet, Bunnage, Carini, Kuh, & Kennedy, 2004). including a thorough literature review to gather possible questions for the survey along with focus groups, cognitive interviews, and expert reviews to modify the survey. The modified survey will then be used in a pilot survey to develop reliability. Confirmatory factor analysis will be used to analyze the results of the surveys returned. If needed, these methods will be repeated until the survey is proven valid and reliable for future research.

Research Questions

The following are the research questions for this study:

1. Which survey items need to be modified or eliminated to improve content and criterion validity? (focus groups, cognitive interviews, expert reviews)
2. What is the best fit model to measure parents' schooling and literacy beliefs, behaviors and self-efficacy? (pilot survey)

Limitations and Assumptions

The sample methods chosen for this study will limit the population to only Early Head Start and Head Start parents in the Southwest Georgia; therefore, the survey results are only generalizable to the Head Start and Early Head Start populations in this region. However, other researchers can later utilize the survey to examine the population at the national level making results more generalizable (Field, 2009). Participation in the study could also be limited because I do not have an established relationship with the Early Head Start and Head Start facilities. Because the parents will consider me a stranger, their willingness to help in focus groups and cognitive interviews could be affected by limiting the sample of the study. My participant recruitment plans are designed to increase my presence at the centers and interaction among the teachers and parents; therefore, minimizing the effects of this limitation.

Also, conducting a survey rather than an interview limits the types of question asked and the kinds of answers participants can give (Kelley, Clark, Brown, and Sitzia, 2003). This survey only provides statements to parents in which they must respond by answering one of the five likert scale choices. The participants are not able to elaborate or respond to the questions in their own words. Also, response rates are usually higher with interviews than with surveys (Kelley, Clark, Brown, and Sitzia, 2003). By also integrating focus groups and cognitive interviews into the design of the study, participants will be able to answer open-ended questions and provide feedback allowing for more descriptive data.

Another limitation of the study is the collection of self-report data (Field, 2009). Participants are likely to provide feedback and answers to the survey they think the researcher wants to hear or that is socially acceptable. This limitation could disrupt the internal validity of the survey (Field, 2009). This limitation will be addressed through the anonymity and confidentiality procedures in the study. Participants will be made aware of these procedures before any research is conducted.

Lastly, my researcher bias and different cultural background could limit the results of the survey; therefore, fully understanding the participants and their home experiences is vital (Appleton, 2006). This limitation will be addressed by conducting a thorough literature review of study’s population and their typical beliefs and behaviors regarding schooling, literacy, and self-efficacy. Also, the focus groups and cognitive interviews can capture more comprehensive data on the Early Head Start and Head Start population.

In addition to limitations, there are two main assumptions in this study. The first assumption is participants will provide accurate data during the focus groups, cognitive interviews, and pilot survey. This can be warranted because anonymity and confidentiality will be conserved (Simon, 2011). Also, the recruitment processes are volunteer-based and participants will be aware they can withdraw from the study at any time and with no consequences. The second assumption is the items on the survey will measure what they are designed to measure. This assumption can be justified by utilizing a methodology that is both qualitatively and quantitatively sound by including focus groups, cognitive interviews, expert reviews, and a pilot survey (Blalock, 2007; Simon, 2011).

Definitions of Terms

Terms for the study are defined in Table 1.1 and Table 1.2.

Table 1.1

Definitions of Survey Subscales

Survey Subscales	Definitions
Schooling Beliefs	Refers to beliefs or principles parents have about training, guidance, discipline, or achievement with regards to school or educational institutions (Kunzman, 2012; Sigel & McGillicuddy-De Lisi, 2002). In this study, beliefs and expectations are used interchangeably.

Schooling Behaviors	Refers to actions and/or mannerisms parents enact in the home related to training, guidance, discipline, or achievement with regards to school or educational institutions (Kunzman, 2012; Roe & Siegelman, 1963).
Literacy Beliefs	Refers to the beliefs or principles parents have about their children’s ability to read, write, listen, speak, view, and visually represent ideas (Sigel & McGillicuddy-De Lisi, 2002; UNESCO, 2005). In this study, beliefs and expectations are used interchangeably.
Literacy Behaviors	Refers to actions and/or mannerisms parents enact within the home regarding reading, writing, listening, speaking, viewing, and visually representing ideas (UNESCO, 2005; Roe & Siegelman, 1963).
Parental Self-efficacy	Refers to a parent’s measure of his or her own competence and confidence to complete certain tasks within the home (Bandura, 1989).

Table 1.2

Definitions of Other Relevant Terms in the Study

Relevant Terms	
Early Head Start	A federally funded child development program for low-income families with infants, toddlers, and women who are pregnant (ages 0 - 3 years) (Early Head Start National Research Center, N.D.).
Head Start	A federally funded child development program that serves low income families and their preschool age children (Early Childhood Learning and Knowledge Center, 2012).
Culturally relevant pedagogy	An effective teaching strategy in culturally diverse classrooms that emphasizes the integration of students' cultural backgrounds in instruction (Irvine, 2010).

Chapter 2

Researchers and educators tend to judge the credibility and diminish the literacy experiences occurring in diverse homes because the experiences do not fit mainstream literacy practices (Compton-lilly, 2008; Compton-Lilly, 2000; Compton-lilly, Rogers, & Lewis, 2012; Slaughter & Epps, 1987; Whitehouse & Colvin, 2001). Children in diverse families' main literacy practices incorporate social interaction, environmental print and religious material. These families are often reading invitations, writing grocery lists, memorizing church material, and acknowledging road and store signs. Many children in these families are also reading with siblings, friends, and neighbors and participate in story-telling among large groups of people (Compton-Lilly, 2008; Heath, 1983; McCarthey, 1997)

While working with the parents in these families, Compton-Lilly (2004) identified popular assumptions that can affect how teachers work with low-income African American parents and students. Educators often assume these families do not participate in literacy activities individually or with their children. Society also assumes these parents do not have the desire or knowledge to practice reading and writing skills with their child. Compton-Lilly states researchers and educators assume this lack of involvement is due to limited literacy resources in the home and the large number of parents who did not have a solid childhood literacy home environment. However, other researchers have determined the lack of parent involvement is actually due to the cultural differences between the school environment and the home environment (Compton-Lilly & Greene, 2011). Lovelace and Wheeler (2000) determined many of these differences originate from language patterns, vocabulary, beliefs, and social interactions. Diverse children are exposed to unfamiliar language, vocabulary, and independent work within the classroom. Despite the assumptions, researchers have determined low-income African American families do support the literacy learning in the home.

Because of the typical enrollment demographics and the eligibility requirements, similar assumptions regarding behaviors, beliefs, and self-efficacy are made about Early Head Start (EHS) and Head Start (HS) families. Previous research shows Head Start parents have distinct behaviors and beliefs when it comes to their children and education. Head Start families do want to create a home environment that supports learning (Bruckman & Blanton, 2003). In 2005, McAllister, Wilson, Green, and Baldwin conducted a series of qualitative interviews, ethnographic studies, and home photography projects to understand the behaviors and beliefs of Head Start parents. They determined Head Start parents agree cognitive development and academic skills are important for school success. Parents also felt it was important to teach children how to get along with others and their teachers and how to have self-respect and stand up for themselves.

Because of the similarities between EHS and HS families and the larger population of low-income African-American families, EHS and HS is the perfect place to begin the process of understanding the families' home literacy practices, building on this new knowledge, and providing hands-on parenting education (Dutch, 2003; Webster-Stratton, Reid, & Hammond, 2001). Targeting parents in EHS and HS programs in Georgia can provide insight into their home life and parenting practices, and allow interventionists to begin working with these parents while their children are still young. Similarly, Heckman (1995) concluded intervention in the home life at an early age can have positive effects on children's later educational success (Heckman, 1995).

Literacy and language difficulties children face in the classroom can be attributed to the discrepancy between home literacy experiences and school literacy experiences (Ladson-Billings, 1995; Morrow, 1995). For example, in some cultures learning is done by listening and children are taught to not question adults. Therefore, when teachers expect their students to ask for clarification or help, they are undermining certain cultural norms of their students (Compton-Lilly, 2009). Also, many teachers expect students to perform tasks individually. However, many low-income African American students experience literacy as a social event within the home (Compton-Lilly, 2009). This involves reading, writing, and telling stories among family members, friends, and neighbors. Researchers and educators need a better understanding of the world of diverse families and better support parents in literacy learning in the home (Ordoñez-Jasis & Ortiz, 2006; Waters & Harris, 2009).

Because the school's learning environment focuses on the individual, teachers lack the understanding of how culture affects academic performance (Ladson-Billings, 2006). Ladson-Billings (2006) stated teachers want to blame the student for not performing well academically and disregard any influence their family and community may have on a student's performance. Furthermore, teachers would rather associate students' failures to something internal rather than explaining how culture discrepancies between home and the classroom have created academic problems. Teachers should support behaviors exhibited in the home and community in the classroom; unfortunately, many teachers only have a surface understanding of their students' way of life (Ladson-Billings, 1995). McCarthey (1997) conducted an ethnographic study observing the home and classroom environment of four students, their parents, and their teachers. Two of the students came from diverse families, and McCarthey concluded the teachers did not have enough tools or expertise to help these diverse students make the connection between their home literacy practices and the classroom literacy practices. The teachers assumed the diverse students could make the connections on their own without explicit instruction; however, McCarthey found this was not the case. For example, one young girl from a low-income African American family was very quiet, shy, and reluctant to read in class. However, McCarthey found the girl outside of school loved reading the Bible and interacting with her peers at the Boys' and Girls' Club. The girls' teacher did not try to incorporate these aspects of the girls' life in the classroom expecting her to make the connections on her own. The teachers Compton-Lilly (2004) determined merging home and school practices can create meaningful and personally relevant learning experiences (Compton-Lilly, 2004). Teachers should incorporate literacy activities that mimic experiences from students' home environment. These activities would involve reading a variety of text including magazines, invitations, and environmental print (Johnson, 2010). Many activities would also incorporate group work to emulate the social aspect of reading many diverse children experience within the home (Johnson, 2010).

Schools should also create strong partnerships and understand the identities of its students (Compton-Lilly & Greene, 2011; Dudley-Marling, 2009; McCarthey, 1997). Other studies also established the significance of the parent as the most influential teacher for their child (Britto, 2001; Cronan, Walen, & Cruz, 1994; Maduekwe & Adeosun, 2010). Incorporating social and cultural contexts that highlight diversity in the classroom can enhance literacy learning (Compton-lilly, 2008; Compton-lilly, Rogers, & Lewis, 2012). Therefore, we need to work with diverse families to critically understand their literacy practices and develop authentic relationships that will foster the communication between schools and parents and offer meaningful literacy activities to nonmainstream children (Compton-lilly, Rogers, & Lewis, 2012; Elish-Piper, 1997; Whitehouse & Colvin, 2001). In predominately African American student classrooms, meaningful literacy activities incorporate the language and social aspect of their culture. Meaningful activities encourage students to use their language and cultural tendencies to acquire knowledge in the classroom without losing their identities. These activities increase African American students' motivation and desire to acquire knowledge (Williams, 2006). Identifying which cultural aspects to incorporate into the curriculum and develop meaningful literacy activities can only be done by better understanding the home life of the students. This task can be accomplished by surveying parents regarding their beliefs and behaviors regarding self-efficacy, schooling and literacy.

Constructs in the Survey

When working with different populations, educators should not assume families' utilize inappropriate practices because the practices are not equivalent to mainstream descriptions. Instead, educators should determine the appropriate practices low-income African American families conduct and connect these practices at school (Compton-Lilly, 2009). Researchers have determined the appropriate parental behaviors, beliefs, and self-efficacy level that should occur in the home which can be found below under the schooling, literacy, and self-efficacy sections (Astone & McLanahan, 1991; Bauman & Wasserman, 2010; Baumrind, 1967; Bruckman & Blanton, 2003; Burger & Landerholm, 1991; Dutch, 2003; Glascoe & Leew, 2010; Green, Walker, Hoover-Dempsey, & Sandler, 2007; Maduekwe & Adoesun, 2010; Pomerantz, Moorman, & Litwach, 2007;

Prins & Toso, 2008; Raikes & Thompson, 2005; Steinberg, Lamborn, Dornbusch, & Darling, 1992). Developing a survey to better understand the beliefs and behaviors of diverse families can help researchers and educators communicate with the parents and students and ensure educational success in the classroom. Schools can better communicate with parents by taking the time to fully understand the families' way of life. When researchers and educators begin to better understand diverse families, recognize cultural differences, and value the students' home experience, assumptions disappear and literacy practices within the home and classroom flourish (Compton-Lilly, 2004).

The survey is designed to include the most influential beliefs and behaviors regarding schooling, literacy, and self-efficacy with an emphasis on the low-income African American populations' beliefs and behaviors. Researchers have determined certain parental behaviors and beliefs considered independent and positive predictors of a child's educational success (Cronan, Walen, & Cruz, 1994; Wentzel, 1998). Items on the survey have been created with regard to these behaviors and beliefs in the areas of schooling, literacy, and self-efficacy.

Schooling beliefs and behaviors

Certain parental beliefs and behaviors in the home have been linked to success in school (Spera, 2005). Schooling refers to the training, guidance, discipline, or achievement with regards to school or educational institutions (Kunzman, 2012). Parents who prioritize school achievement are more likely to enact behaviors that lead to high performance in the classroom (Astone & McLanahan, 1991; Spera, 2005; Wentzel, 1998). Determining what schooling beliefs parents have and which schooling behaviors parents enact in the home can help researchers and educators collaborate with families and improve academic achievement. Astone and McLanahan (1991) found parental beliefs and behaviors such as aspirations for educational success, supervision of daily tasks, monitoring of school work, and talking about school to have positive effects towards attitudes and achievement in school.

Parental beliefs can affect their behaviors regarding educational performance. Wentzel (1998) concluded parental beliefs are an independent and positive predictor of a parent’s educational aspirations for their child. In 2007, Pomerantz, Moorman, & Litwack identified a relationship between parents’ beliefs in their children abilities to perform well in class, and the long-term educational goals they set for their children. Essentially, how parents think about their child's potential to do well in school influences their child’s performance. If parents believe their children can succeed, then the children have stronger sense of self-efficacy in education (Rutchick, Smyth, Lopoo, & Dusek, 2009). Adopting and internalizing beliefs and goals for their children are critical steps parents should take in promoting educational success (Wentzel, 1998). Spera, Wentzel, and Matto (2009) found all parents, regardless of ethnicity, have high educational aspirations for their children.

Similar to beliefs, parental expectations have significant effects on academic achievement (Lazar, 1981; Rutchick, Smyth, Lopoo, & Dusek, 2009). If parents have high expectations regarding their child's success in academics, then the child is also likely to place a stronger emphasis on his or her academic achievement. Because of their parents’ high expectations, the children understand educational success provides them with positive feedback and other rewards. Also, parents who have higher expectations encourage their children more, thus, contributing to higher levels of interest, enhanced school achievement, and continued schooling.

Parental expectations can also be influenced by the parents’ schooling level. Typically, parents’ expectations regarding the amount of schooling their children will complete are primarily influenced by how much schooling the parent completed. Furthermore, parents’ expectations for their child's school achievement may also be based on the parents’ amount of schooling as well as other factors more directly related to the child (Baroody, & Dobbs-Oates, 2011). Britto (1999) also identified a significant correlation between maternal education and their children’s literacy skills. Therefore, identifying the parents’ level of schooling can give insight into their expectations for their children.

One of the primary behaviors parents can enact to better prepare their children for society is by communicating the goals they want their children to attain, the aspirations they want their child to fulfill, and the values they want their children to internalize (Spera, 2005). Spera determined the goals and aspirations parents set for themselves and their child influences their behaviors toward their children. These behaviors then influence their children's setting of academic goals, persistence in school, course enrollment, intellectual accomplishments, and attendance of college. When parents believe their children have the ability to succeed academically and communicate this to their children, they provide additional confidence and motivation to their children leading to educational success (Rutchick, Smyth, Lopoo, & Dusek, 2009). Spera (2005) also determined if parents communicate a strong appreciation for academic achievement, their children will probably be motivated to try harder in school to gain attention, respect, and other rewards from parents.

Parental behaviors related to authoritative parenting also have a significant impact on school performance and engagement (Steinberg, Lamborn, Dornbusch, & Darling, 1992). Authoritative parents not only exhibit the same behaviors they expect their children to portray, but they also, listen to, encourage, and set high expectations for their children (Baumrind, 1967). Authoritative parents also incorporate effective practices in the home such as cognitive stimulation, valuable interactions, and positive discipline techniques. In 2003, Dutch determined these practices result in high academic achievement; thus, these practices are important behaviors parents should enact in the home.

Low-income, African American families have similar beliefs and behaviors regarding schooling. Drummond and Stipek (2004) conducted a study to obtain information on low-income parents' beliefs about schooling. Two hundred and thirty-four second and third grade children's parents were interviewed, and the researchers stated many of the parents valued their child's learning and believed they should facilitate their child's success in school. The low-income parents also viewed success in school as part of a larger context meaning they should develop strong relationships and stay safe. Overall, the parents viewed school as a viable resource and important supplier of information needed to succeed in society.

Focusing on low-income African American and ESL parents with low performing students, Dudley-Marling (2009) identified parents' perspectives on school and home literacy practices among school-age children. Although the parents perspectives did not coincide with traditional literacy practices in the home, Dudley-Marling did determine the parents were committed to their children, their education, and learning to read. The parents stressed the importance of resilience and how school can give their children a better life. Similar to other studies, the parents were focused on their children's future and expressed their beliefs of how having an education will lead to success for their children (Compton-Lilly, 2004; Compton-Lilly, 2000; Dudley-Marling, 2009). Parents consider "staying on a child" and keeping them "on track" as important aspects of a nurturing and caring relationships (Compton-Lilly, 2000). African American families did not feel it is only the school's job to teach their children (Samaras & Wilson, 1999). Despite assumptions, parents in diverse families do have an interest in their child's education and learning at home (Compton-Lilly, 2004).

Head Start parents also have similar beliefs and behaviors regarding schooling. Parker, Boak, Griffin, Ripple, and Peay (1999) conducted an exploratory study in the associations between the home learning environment, relationships between the parent and child, and school readiness. One hundred and seventy three mothers of Head Start students were sampled. A link was identified between parental behaviors and beliefs and school readiness (Boak, Griffin, Ripple, & Peary, 1999). Families with an enhanced relationship and home learning environment had children who were more ready for school. Children were better behaved and more cognitively developed for school when the parent-child relationship contained more warmth and encouragement of independence. Likewise, children were more ready for school when parents were actively involved in the home learning environment by incorporating sensory learning and encouraging creativity and curiosity.

Galper, Wigfield, and Seefeldt (1997) examined Head Start parents' beliefs about their children's abilities and performance and expectations for their children's future. The researchers also explored the relationships between these beliefs and expectations and their children's attitudes and achievement. Galper, Wigfield, and Seefeldt found these parents were confident in their children and supported learning in the home. Parents viewed learning activities as more important than sports and making friends and enjoyed working with their children on academic tasks. Also, parents predicted their children would complete high levels of education despite their low confidence level in helping their children achieve this goal. The researchers also identified relationships between certain parents' beliefs and their children's beliefs, attitudes, and achievement. More specifically, parental beliefs on how well their children would do reciting the alphabet and numbers were significantly related to how well the children believed they would achieve. Also, children whose parents believed reading achievement was important reported liking school more. Lastly, parental beliefs on their child's ability in reciting the alphabet, number skills, and reading were significantly related to reading and mathematics achievement.

Certain parental beliefs and behaviors regarding schooling can lead to educational achievement. Regardless of race or socioeconomic status, children of parents who define their beliefs and expectations, establish what behaviors are important, and vocalize these to their children are better prepared for and more likely to succeed in school (Cohen, 1987). Thus, identifying the schooling beliefs and behaviors of parents can help researchers and educators better understand the home environment and the possible educational success level of the children.

After the review of literature, questions on the survey examine parents’ goals and aspirations for their child’s educational success. Also, the survey measures the beliefs and behaviors regarding supervision, monitoring, and communication. The parents’ highest educational attainment and view of education are also measured on the survey. See Table A1 in Appendix A for further information regarding survey questions and their relation to the review of literature.

Literacy Beliefs and Behaviors

Specific parental beliefs and behaviors are linked to literacy achievement. Literacy refers to the ability to read, write, listen, speak, view, and visually represent ideas ((Sigel & McGillicuddy-De Lisi, 2002; UNESCO, 2005). Cultivating these skills in the home as well as in the classroom is important for academic success. Understanding the literacy beliefs and behaviors occurring in the home can help researchers and educators work with parents and students to create a more conducive learning environment.

In a five-year longitudinal study, Senechal & LeFevre (2002) studied how parental involvement in literacy can have a huge influence on children’s academic achievement. At the beginning of the study, children were in kindergarten, and by the end of the study, the children had completed third grade. Senechal and LeFevre found a clear link from home literacy experiences to later reading achievement. Achievement in receptive language was positively related to storybook reading and exposure to print, while formal literacy activities such as the parent acting as the teacher were linked to an increase in development of early literacy skills. Senechal and LeFevre also stated parents’ knowledge level can indirectly relate to later vocabulary and listening comprehension skills, while the parents' at-home teaching abilities can also affect later achievement.

Certain parental literacy behaviors are also linked to high achievement. Specific reading behaviors such as asking questions and communicating positive statements to children can facilitate literacy development (Burger & Landerholm, 1991). Also, parents who read with their children and engage in dialogue with them about story concepts facilitate literacy development. These literacy behaviors also prepare children to read independently and succeed in school (Bauman & Wasserman, 2010). Many exposures and experiences with print before children enter formal schooling are beneficial. Therefore, strong parental engagement in these literacy behaviors is good a foundation to literacy development.

Baker and Schner (2002) sampled low income and middle income African American and European American first grade children and their mothers. One of their goals was to examine the relationship between motivation and parent's literacy behaviors and beliefs within the home. One major finding was parental behaviors were more important than parents' income level in regards to children's motivational level. Despite the financial hardships low-income families might face, educational motivation does not differ across income levels. Also, the quality of the literacy experience was more effective in developing the children's motivation than the frequency of literacy experiences. Baker and Schner define the literacy experience by the frequency of reading within the home, individuals involved during the reading, and visits to the library. The researchers determined low-income children were more likely to participate in shared reading with another child rather than an adult. However, shared reading between the child and parent more positive effects. They also stated parents who continually expressed reading for pleasure have a more positive effect on influencing their child's motivation. Parents who believed their children were interested in literacy activities and acted on this belief had children who considered themselves more competent readers.

Attempting to better understand the low-income African American population, Compton-Lilly (2004, 2009, 2011, & 2012) visited a variety of aged children's homes to identify appropriate parental literacy beliefs and behaviors. She determined many of the homes had plenty of reading materials such as newspapers, magazines, mechanical books, science fiction, love stories, and cable books. Parents were also determined on setting a good example by having a thoughtful attitude about literacy. Because low-income African American parents reported reading simple readers, using flash cards, working with phonics programs, and using computers and video technology during their childhood experiences, these practices were also seen in the home. The most common approaches to literacy in the African American home were sounding out words, repetition, and practice. For example, parents made their children write words five times and use flash cards for learning sight words and vocabulary. Parents also created phonics, spelling, and reading games to help their children perform better in the classroom. These families frequently sang the alphabet song or used the closed caption on television shows to read (Compton-Lilly, 2004). Dictionaries and computers were also popular literacy resources used among the low-income African American families (Compton-Lilly, 2004).

Shared reading is another popular literacy practice seen in low-income African American homes (Compton-Lilly, 2012). Children are regularly involved in reading with parents, siblings, and other relatives and friends. The primary reading materials in the home are series books, magazines, school books, mail, newspaper ads, and media related materials (Compton-Lilly, 2000; McCarthey, 1997). Parents also use environmental print such as road signs, store signs, and labels in the grocery store to involve their children in shared reading.

EHS and HS parents also have similar beliefs and behaviors. In 2012, Lynch interviewed parents of Head Start children on types of literacy activities they engage in at home. Several parents reported engaging in many highly promoted reading practices determined by researchers. Over 95 percent of the parents reported reading stories to their children with 86 percent of them reading daily. Typical reading activities involved reading environmental print such as billboards and street signs. Parents also reported reading game boards, cereal boxes, and mail to their children. Many of the parents believed writing activities were also important. Ninety-two percent of the Head Start parents reported they engaged their children in writing activities such as writing the children’s names or the alphabet. Ninety-five percent of these parents reported engaging in these writing activities daily.

Bracken and Fischel **(**2008) also examined the reading behaviors among 233 Head Start families. The researchers wanted to look past socioeconomic status and identify literacy practices occurring in the home and examine the relationship between these practices and children’s early literacy skills. The researchers identified important literacy activities occurring in the home. Fifty-four percent of the parents stated they read with the children daily, and 39% of parents stated beginning this practice before the age of six months. Forty-eight percent of the parents reported enjoying reading very much while 21% of the parents reported reading more than an hour daily. The researchers combined the behaviors of frequency and duration of shared reading, library visits, book ownership, and the child's beginning age of exposure to print to serve as Parent-Child Interaction. After results from a literacy assessment were analyzed, Bracken and Fischel determined a significant relationship between parent-child interaction and early literacy skills. Further analysis showed parent-child interaction was a stronger predictor of early literacy skills than family demographics. Therefore, identifying parental behaviors among families can help researchers and educators predict students' literacy abilities.

To measures literacy beliefs, questions from Preschool Teacher Literacy Beliefs Questionnaire are included on the survey (Hindman & Wasik, 2008). The questionnaire was developed to measure beliefs regarding researched based best-practices in early literacy (Seefeldt, 2004). Seedfeldt, Hindman, and Wasik found the questionnaire to be reliable in measuring teacher literacy beliefs; in this survey, questions have been modified to measure parents' beliefs regarding the same best literacy practices. Since parental beliefs are likely to guide parental behaviors, these questions also provide insight into the literacy behaviors occurring in the home.

After the review of the literature, questions on the survey measure the beliefs and behaviors regarding storybook reading, exposure to print, and literacy knowledge level due to their relationship with achievement, early literacy skills, and motivation levels. Questions on the survey specifically measure aspects of the reading event in the home such as the type of interaction when reading, the amount of reading, individuals involved in the reading event, and the parents' beliefs and behaviors in reading for pleasure.

Also, included on the survey are questions measuring typical beliefs and behaviors of low-income African American families. These questions examine the types of reading materials available and used in the home. Questions also measure participation in certain daily reading and writing activities typical in low-income African American homes. These questions highlight the practices among EHS and HS parents and their relationship with the larger low-income African American population. See Appendix B for further information regarding survey questions and their relation to the review of literature.

Self-efficacy

Self-efficacy is a strong predictor of parental involvement in the home (Green, Walker, Hoover-Dempsey, & Sandler, 2007). Parental self-efficacy refers to a parent's measure of his or her own competence and confidence to complete certain tasks within the home (Bandura, 1989). Machilda, Taylor, and Kim (2002) stated efficacious parents view themselves as teachers at home and are more involved in learning activities and provide more stimulating learning environments. Parents with high levels of self-efficacy also implement behaviors that have positive long-term effects. Identifying parents' self-efficacy levels can help researchers and educators better understand the home environment and the amount of parental involvement in regards to learning.

Parents' perceptions of personal skills and knowledge shape their ideas about the kinds of involvement activities they might undertake. Thus, the level of parental self-efficacy reflects the ability to parent effectively and development of achievement goals (Green, Walker, Hoover-Dempsey, & Sandler, 2007; Machilda, Taylor, & Kim, 2002). The range of activities parents see as important or essential for learning is affected by how parents view their role as an educator in the home environment (Bruckman & Blanton, 2003). Parents' beliefs and behaviors toward their children regarding schooling and literacy are influenced by how efficacious they feel (Machilda, Taylor, & Kim, 2002).

Interested in understanding low-income African American parents' level of self-efficacy with their school age children, Compton-Lilly (2004, 2009, 2011, & 2012) spent a multitude of hours interviewing and studying parents in this population. She determined these parents were insistent on being good teachers and setting a good example by reading and writing in front of their children (Samaras & Wilson, 1999). Along with Dudley-Marling (2009), Compton-Lilly discovered parents tried to be good teachers at home by explaining difficult material, and making sure homework was completed and understood. In the homes, parents engaged their children in reading materials of their choice, playing learning games, and using the computer (Compton-Lilly & Greene, 2011). Outside of the home, parents mentioned engaging their children in literacy practices such as reading road and store signs, and going to the public library to read or use the computer. With regards to teaching specific literacy skills, parents consistently read aloud to their children, demonstrated tracking while reading and taught how to use the dictionary appropriately. Parents also taught their children how to speak in different situations using the pragmatic language system. Overall, the parents seemed to take pleasure in pursing an active role in teaching at home, and the children appeared to enjoy reading and writing.

Head Start parents have also demonstrated similar self-efficacy levels. Machilda, Taylor, and Kim (2002) concluded Head Start parents do "have some sense of competency and confidence in parenting and facilitating a home environment that prepares children for school." After surveying mothers of Early Head Start children, Raikes and Thompson (2005) identified some of the mothers having high self-efficacy which resulted in a more positive home learning environment. They also found high self-efficacy levels also reduced the stress levels due to low-income issues. Raikes and Thompson also concluded parents who felt more efficacious were better able to deal with parenting of young children and feel more in control of their lives.

After the review of literature, questions on the survey assess the parents' competence and confidence as their child's teacher at home. Questions examine the behaviors and beliefs on parents modeling appropriate practices, and helping with schoolwork in the home. The survey measures how and ways parents take an active role in teaching and engaging their child at home. See Appendix C for further information regarding survey questions and their relation to the review of literature.

Utilizing the Survey

Educators need to better understand the behaviors and beliefs of low-income parents (Bruckman & Blanton, 2003; Parker, Boak, Griffin, Ripple, & Peay, 1999), and Head Start is the place to provide hands-on parenting education to high-risk families (Dutch, 2003; Webster-Stratton, Reid, & Hammond, 2001). EHS and HS parents need services offering appropriate and culturally responsive parenting techniques related to educational success (Lazar, 1981). This survey can help researchers and educators identify EHS and HS parents' behaviors and beliefs about schooling, literacy, and self-efficacy. Utilizing a survey that will help better understand the culture of their students will help researchers and educators implement more culturally relevant pedagogy and effective family literacy programs.

Assessment of parental behaviors and beliefs can guide educators in how they interact with parents and the home learning environment (Britto, 2001; Machilda, Taylor, & Kim, 2002). Machilda, Taylor, and Kim found consistent evidence the quality of the learning environment in the home serves as a major pathway for children's cognitive and academic achievement. Therefore, creating a strong relationship with the parent is important, and to achieve this, teachers need to understand each parent's behaviors, beliefs, and self-efficacy level (Bruckman & Blanton, 2003). This is critical in better preparing parents to be teachers to their children.

Researchers and educators can use the survey results to help struggling children make connections from home and school experiences. Allowing culture to be the driving force in the classroom is known as culturally relevant pedagogy. Ladson-Billings (1995) concluded this culturally relevant pedagogy ensures students have cultural competence, maintains cultural integrity, and should be the driving force for learning in the classroom. Culturally relevant pedagogy incorporates the students' backgrounds and experiences to make learning meaningful. Teachers support students' home language, encourage community pride and incorporate the culture in curriculum planning (Ladson-Billings, 1998; Ladson-Billings, 1995). Teachers who have implemented culturally relevant pedagogy have seen success among their African American students (Ladson-Billings, 1995). These teachers view themselves as part of the community and desire to give back to the community through their teaching. Culturally relevant teachers are not tied to standards and view teaching as an art. Student-teacher relationships are flexible and connected. Culturally relevant teachers encourage collaborative learning and strive to create a community of learners. Teachers strive to build bridges between home and school and are passionate about their incorporating the culture into the curriculum (Compton-Lilly, 2009; Ladson-Billings, 1995).

Since Hammer, Farkas, and Maczuga (2010) state students' achievement levels in Head Start programs can predict their early reading abilities when they begin school, implementing effective teaching practices such as culturally relevant pedagogy in EHS and HS programs would be beneficial. Regardless of race or income level, culturally relevant teachers strive to foster innate talents among all children (Compton-Lilly, 2009). These teachers also understand the importance of incorporating authentic learning experiences (Compton-Lilly, 2009). For EHS and HS programs, this might mean incorporating more culturally relevant reading materials and shared reading experiences. These teachers might also find ways to incorporate home language patterns, environmental print, storytelling and familiar reading material.

Results from the survey could be used to help improve the communication between schools and parents. Parents can be important resources and provide valuable information; however, low-income, African American parents tend to find their relationship with their children's school fearful and difficult (Compton-Lilly, 2004) because the communication between home and school is problematic (Dudley-Marling, 2009). Decisions are made by the schools with not enough input from parents. Also, at-home activities suggested by schools do not fit with the families' values, expectations, and materials. Parents are aware of these inequities and feel as though schools should respect their families' identities and incorporate their culture into the curriculum (Compton-Lilly, 2009; Dudley-Marling, 2009).

Better communication will also help with the implementation of stronger family literacy programs at the EHS and HS facilities. Previous research has shown improving parenting education in these programs has resulted in an increase in literacy skills, cognitive stimulation and parent-child interactions (Duch, 2003). Diverse families' beliefs and behaviors are often ignored as positive influences. Yet, family literacy programs that build on these parents' abilities and high-quality interactions have been found to be successful. Schools need to value the positive contribution diverse parents make to their child's learning experiences (Compton-Lilly, 2000; Dudley-Marling, 2009). In a study of four low-income families' literacy practices, Elish-Piper (1997) stated every family in the study utilized literacy as a tool within the home. Literacy activities were used for survival, organization, correspondence, religious, or recreational purposes. Families read bus schedules, letters from friends, and church bulletins. Families also participated in writing shopping lists, schedules and school forms. Incorporating these common low-income literacy practices into EHS and HS family literacy programs create meaningful learning experiences and help parents and children take ownership of their learning (Elish-Piper, 1997).

Cookie-cutter family literacy programs that do not allow family input diminishes the potential family literacy programs can have with diverse families (Elish-Piper, 1997). Cookie-cutter programs generally are deficit-based meaning program designers view the participants as deprived or disadvantaged (Ford, Harris, Tyson, & Trotman, 2002). This way of thinking interferes with recognizing the contributions parents and children can provide and is seen as disrespectful among minority families (Dudley-Marling, 2009; James & Kermani, 2001). Family literacy programs are successful when they are designed around the culture of the families who are a part of the program (DeBrun-Parecki, 2009, Ordoñez-Jasis & Ortiz, 2006; Elish-Piper, 1997). James and Kermani (2001) modified their family literacy program to respect the literacy practices and traditions used by the participants. This modification resulted in a 100% retention rate compared to a 75% dropout rate before the changes were made.

Family literacy staff that is familiar with the customs, language, and structure of the community increases the success rate of family literacy programs (DeBrun-Parecki, 2009). Klassen-Endrizzi (2000) conducted a series of family literacy programs to examine the parental literacy beliefs. She identified many important issues in building the bridge from home to school practices. One issue is the parents' beliefs shaped their behaviors at home; therefore, she found it important to listen to parents and respect their current beliefs and behaviors when trying to collaborate with parents. Also, parents need to be the key members in developing family literacy programs. Their experiences and voices can add to the intricacy of learning.

Concurring with Klassen-Endrizzi (2000), Cooter (2006) also identified research-based behaviors and beliefs family literacy program designers should incorporate to help low-income, low-level education families. Programs should value parents' current beliefs and behaviors and build on them when presenting other effective beliefs and behaviors. Family literacy programs should also encourage parents to interact with their children using their familiar behaviors while also incorporating other proven effective behaviors. Griffis (2003) stated successful family literacy also value the home language of the participants, build on their needs, provide a variety of cultural reading materials, and find ways to collaborate with the community.

Developing family literacy programs should begin with understanding the families' home environments. In order to develop more successful family literacy programs for low-income families, Lynch (2009) set out to work with the most stereotyped parents in regards to engaging in literacy within the home. She worked with 38 Head Start parents and identified many literacy practices occurring in the homes. Identifying these practices is critical in developing literacy programs because researchers and educators need to validate the current practices occurring within the home and provide authentic learning experiences rather than a cookie-cutter curriculum. Lynch questioned the families about their reading and writing activities such the genre of choice and frequency. Sample questions asked if within the last year had the parents read a store advertisement, flier, or coupon, to provide an example, and identify the frequency. In regards to writing, parents were asked if within the last year they had written a list, to provide an example, and identify a frequency. Lynch believes this process helps families increase their own understanding of literacy by acknowledging their own literacy practices and better understanding other culturally appropriate literacy practices.

Family literacy programs should help parents build confidence and educational aspirations among their children. They should focus on the quality of family involvement, nurturing relationships and appropriate behaviors. Parents should be helping their children with their homework, discussing school activities, and setting high educational goals for their children. Parents should also be limiting the amount of media interaction and increasing the amount of supervision. Israel, Beaulieu, and Hartless

(2001) determined these techniques can have powerful and positive effects on achievement. An example of this effect can be seen in the Chicago Parent Program in Chicago, Illinois (Raikes and Thompson, 2005). This program is a family intervention program based on the theory parents play an important role in their child's life. The program's organizers used parents input to develop the curriculum for the program. Parents who attended at least 50% of the sessions provided by the program reported increased levels of self-efficacy; therefore, leading to a more positive home environment. The results from this survey can help researchers and educators design family intervention programs that are based on the life experiences of EHS and HS families.

Valuing the schooling and literacy beliefs and behaviors occurring in diverse communities increases the appreciation of literacy within the home and motivates children at school (Whitehouse & Colvin, 2001). It is important to include parents in the design of intervention programs. Understanding their beliefs and behaviors can eliminate barriers and increase positive communication (Galper, Wigfield, & Seefeldt, 1997). Therefore, enhancing the parent-child relationship in the home environment can be critical for school readiness. EHS and HS facilities can also use survey results to design family literacy programs that build on appropriate practices already being used in the home. The earlier effective parenting practices can be seen in the home the longer the effects will be seen in school.

Chapter 3

This chapter details the methods used to develop a valid and reliable survey that measures parental behaviors and beliefs in literacy, schooling, and parental self-efficacy among Early Head Start (EHS) and Head Start (HS) families. The methodology was designed to answer the study's two research questions: (1) Which survey items need to be modified or eliminated to improve content and criterion validity? (focus groups, cognitive interviews, expert reviews) (4) What is the best fit model to measure parents' schooling and literacy beliefs, behaviors and self-efficacy? (pilot survey). Participants and setting, the design of the study, and data analysis plan are described.

Participants and Setting

Parents of EHS and HS children (n = 270) the southwest region of Georgia were sampled due to the young age of their children and income requirements. Early Head Start and Head Start eligibility requirements require children to be of age birth to five and come from low-income families. In 2008-2009, 80% of the children enrolled in Early Head Start and Head Start met the income eligibility requirements (Georgia Head Start, 2010). EHS and HS use the poverty guidelines determined by The U.S. Department of Health and Human Services (HHS) for income eligibility requirements (See Table 3.1 for HHS poverty guidelines) (Sebelius, 2012).

Table 3.1

2012 Poverty Guidelines for the 48 Contiguous States and the District of Columbia

Persons in family/household	Poverty guideline
1	$11,170
2	15,130
3	19,090
4	23,050
5	27,010
6	30,970
7	34,930
8	38,890

Note. For families/households with more than 8 persons add $3,960 for each additional person.

According to the 2008 – 2009 Early Head Start and Head Start Program Information Report, Early Head Start and Head Start programs were offered in 157 out of the 159 counties in the state of Georgia. Out of 25,227 families served, approximately 75% are single parent families. Also, of these single parent families, approximately 44% are unemployed. Around 34% of families have less than high school degree, 46% are high school graduates or GED recipients, 18% have some college experience, vocational degree, or associates degree, 2% have a bachelors or advanced degree. The primary languages of the families served by Early Head Start and Head Start are English (88.52%) and Spanish (10.34%). About 70% of the children served are African American, 21% are Caucasian, and 8% are other.

In addition to parents, EHS and HS experts (n = 3) as well as an expert from higher education (n=1) participated in the study. EHS and HS experts or specialists are individuals who have exceptional insight into the Early Head Start and Head Start population due to their job responsibilities. These child specialists collaborate with other child development team members to provide an environment that invites interest, curiosity and exploration, provide developmental screenings, ongoing assessments and health tracking of children, prepare and implement lesson plans for home visits and parent-child groups, and work with parents to support their development and address family/social service needs (Georgia Head Start Association, 2007). The higher education expert has insight in survey design and quantitative research protocol.

Sampling Methods

Focus groups

Participants for the focus groups were recruited from EHS and HS facilities located in the Southwest Georgia region. Since a convenience sample based on location was used for the focus groups, the researcher attended the EHS and HS facilties during monthly parent education meetings to recruit participants for the focus groups. A script for the parent meeting went as followed: (1) Introduction of the researcher, (2) explanation of the research, (3) explanation of the purpose and benefits of the research, (4) explanation on how the parents can help, (5) explanation of a focus group, (6) explanation of the consent form procedure, (7) explanation of participation being voluntary, confidential, and the right to withdraw at any time, (8) question/answer time, and (9) time to sign-up for focus groups or ask questions individually. Three focus groups from three different EHS and HS centers with 6 – 12 participants was the original goal of the study; however, three focus groups from two different EHS and HS centers with 3 – 12 participants was conducted.

Cognitive interviews

A convenience sample from EHS and HS facilities located in the Southwest Georgia region was again be utilized. Individuals who exhibited metacognitve abilities were needed for the cognitive interviews to run appropriately; therefore, participants for the cognitive interviews were chosen from the focus groups' participants since their thinking skills were observed. This ability was determined by how well the participants though about their own thinking and clearly verbalized these thoughts (Cecil, 2011). Two to three individual cognitive interviews was the goal of this research study. Participants were notified participation is voluntary and confidential, and they had the right to withdraw at any time. After the original three cognitive interviews, no new cognitive interviews were conducted because the participants think aloud responses were similar to each other, leaving little new information.

Expert reviews

A convenience sample of EHS and HS Child Specialists with at least three years of experience was recruited from the centers in the Southwest Georgia region. Also, one expert from higher education was recruited.

Pilot survey

A cluster sample of EHS and HS centers in the Southwest Georgia region was used to pilot the survey. In this region, there are 18 counties with a total of 24 centers. The 18 counties were labeled as clusters, and three clusters were randomly sampled. The centers located within the three counties randomly sampled were asked to participate. Parents were informed that participation is voluntary, confidential, and they had the right to withdraw at any time; therefore, not affecting their relationship with the EHS and HS facility. The goal for the total sample size was 100 - 150 surveys, but the actual sample turned out to be 270 completed surveys. More specific data such as the participant's race and EHS and HS child's age was also collected.

There were two levels of recruitment for the pilot survey. The first level of recruitment was at a monthly parent education meeting. A script for the meeting followed the script as mentioned above in the focus groups. The second level of recruitment took place in the classrooms. This level of recruitment involved the teachers help since they saw the parents on a daily basis especially the ones who do not attend the parent meetings. Teachers were given envelopes containing the consent form and the survey to hand out to parents. Also, in the envelope were directions on how to return the signed form and completed survey to the teacher. The parents were instructed to place their documents in the envelope, seal it, and sign over the seal. Parents were also notified in the directions that they would be given an incentive for their returned surveys. The incentive was a free children's book to promote the importance of reading and literature in the home

Design of the Study

This study was designed to develop a valid and reliable model of measurement for parental behaviors and beliefs regarding schooling, language, literacy, and self-efficacy (Blalock, 2007). A literature review was conducted to develop a conceptual model and items on the survey. Items on the survey were modified from existing surveys or created from ideas presented in the research. A large number of items were generated to thoroughly cover the topic; however, other procedures were completed to create a more concise, valid, and reliable instrument. Content and criterion validity were assessed through focus groups, cognitive interviews, and expert reviews (Blalock, 2007; Ouimet, et al, 2004).

Focus groups

A script for the focus groups went as followed: (1) welcome and introduction of the researcher and research, (2) explanation of how the parents can help and why they are the most suitable for the task, (3) parents were informed that the sessions would be audio recorded for post-analysis and that all recorded information is confidential and anonymous and would only be used for research purposes, (4) parents were informed that participation was voluntary and they had the right to withdraw at any time, (5) the consent form was handed out, read aloud, explained and clarified if needed, and signed by participants, (6) participant introduction, (7) group exercise regarding the statements on the survey, and (8) closing time where the events of the session were summarized and participants were asked if they had any further questions. During the group exercise, statements from the survey were placed on large cards. The participants were instructed to place the statements in stacks according to their degree of agreement (strongly agree,

agree, neither, disagree, strongly disagree) or behavior (always, often, sometimes, rarely, never) (Kitzinger, 1995). Participants were observed and questioned during the exercise for feedback about the language used in the statements and how to better word the statements on the survey. Participants were also instructed to underline any words on the cards that were unclear to them. Blank cards were also readily available in case new statements arised from discussions. Focus groups were audio recorded to capture accurate data for later review. The focus groups lasted around 30 to 60 minutes. The taped recordings were kept under lock and key during the research project and destroyed at the end of the project.

Cognitive interviews

Three cognitive interviews were conducted to understand the respondent's thinking while completing the revised survey from the focus groups. Parents were informed that participation was voluntary, confidential, and they had the right to withdraw at any time. During the cognitive interviews, participants were asked to paraphrase questions, explain responses, define meanings of words, and identify areas of difficulties (Desimone & Le Floch, 2004). While the participant was completing the survey, the researcher observed for certain behaviors such as skipping items (SI), putting answers in the wrong place (AWP), and changes in participants' facial expressions (CFE) (Desimone & Le Floch, 2004). The researcher had a copy of the survey and marked behaviors as they were observed during the interview. To gain insight in cognitive processes used to complete the survey, participants were also asked to think aloud while answering questions. Cognitive interviews lasted around 60 to 90 minutes (Hyden & Bulow, 2003).

Expert reviews

Finally, the survey was reviewed by experts in the field (Dillman, 2007). The survey was reformatted so that the experts could answer each item with a Likert scale identifying the degree the item matches the idea it was aiming to measure. For example, a “5” will mean the question is a “Very good” match, “4” will mean the question is a “Good” match, “3” will mean the question is a “Barely Acceptable” match, “2” will mean the question is a “Poor” match, and “1” will mean the question is a “Very poor match” (Blalock, 2007). Space for comments under each item was added to the survey. This information was used to make further modifications to better meet the purpose of the survey.

Pilot survey

Factorial validity and reliability was assessed by the results of the pilot survey. The purpose of the survey pilot was to evaluate the relationship between the survey items and the factors and to determine how well the hypothesized model fits the collected data (Gay & Airasian, 2000). The survey utilized a Likert scale to analyze results. Parents chose a degree from “1” for “Strongly Disagree” to “5” for “Strongly Agree” when answering items regarding beliefs and self-efficacy, and “1” for “Never,” to “5” for “Always” when answering behavior items. Confirmatory factor analysis was used to analyze the results of the surveys returned. SPSS and AMOS were the statistical programs used to test that the items on the survey measured what they had been designed to measure (Tabachnick & Fidell, 2013). Assumptions and model fit statistics were also tested. These analyses are further described in the data analysis section of this chapter.

Data Analysis

Qualitative procedures

Qualitative data was collected from the focus groups and cognitive interviews. Researcher observations notes, audio-recorded sessions, and written notes from participants were collected. The qualitative data collected from the focus groups and cognitive interviews was coded and analyzed for recurring themes such as confusion regarding questions, inappropriate language used in questions, and possible re-wording, adding, or omitting items. This data was used to modify and delete items from the survey (Desimone & Le Floch, 2004; Krueger, 2002). The Likert scale from the expert reviews was also analyzed and triangulated with the data from the focus groups and cognitive interviews (Blalock, 1997; Morgan & Spanish, 1984).

Quantitative procedures

Quantitative data was collected during the expert reviews and pilot survey. The Likert scale scores from the expert reviews was collected, as well as, the results of the likert scale results from the pilot survey. The degree of measurement amongst the expert reviews' likert scale was analyzed in the following way: Questions determined as a "5" (Very Good Match) and "4" (Good Match) were kept on the survey. Questions determined as a "3" (Barely Acceptable Match), "2" (Poor Match), or "1" (Very poor match) were modified or removed from the survey. These results were also triangulated with focus groups and cognitive interview data to develop more appropriate questions. Interpretation of quantitative data collected during the expert reviews was also used to ensure content and construct validity of the questions.

Confirmatory Factor Analysis and reliability analysis with Cronbach's alpha was the statistical models used to analyze to the data collected from the pilot survey (Gliem & Gliem, 2003). The programs, SPSS and AMOS, were used during this data analysis phase (Tabachnick & Fidell, 2013). Prior to the data analysis, the data was examined for the following assumptions: missing data, univariate and multivariate outliers, normality among the ungrouped data, and homogeneity of variance/covariance matrices. The possibility of univariate and multivariate outliers was determined through z-scores ($z > |3.29|$), skewness and kurtosis ($> |1.0|$), histograms, and Mahalanobis' distance ($p < .05$) (Tabachnick & Fidell, 2013). Bartlett's test was used uphold homogeneity of variance/covariance matrices. The desired result of this test was $p > .05$ (Tabachnick & Fidell, 2013). As part of this analysis, the model fit statistics, comparative fit index (CFI), the root mean square of approximation (RMSEA), and the Tucker-Lewis index (TLI), were used to determine the best fit. Values ranging from .92 to .94 for CFI (Browne & Cudeck, 1993), as well as, .05 to .08 for RMSEA (Browne & Cudeck, 1993) were used to determine good fit. A value greater than .90 for TLI (Tucker & Lewis, 1973) was also used to indicate good fit. Chi-square statistic was not used an indicator of good fit because of its sensitivity to small sample size; however, it was used to test the two-factor nested model. Analysis of factor loadings was also be used to remove items that did not meet the factor loading threshold of .40 or higher (Hulland, 1999). Cronbach's alpha was also evaluated to assess reliability of the each factor and the survey as a whole using a threshold $\geq .70$ to indicate strong reliability. These sources of evidence helped determine factorial validity and reliability of the survey.

Chapter 4

A thorough literature review was conducted to develop a survey measuring five areas of interest among Early Head Start (EHS) and Head Start (HS) parents: self-efficacy, schooling beliefs, literacy beliefs, schooling behaviors, and literacy behaviors (Rea & Parker, 2005). Items were either modified from existing surveys measuring similar constructs or created from previous literature. The goal was to have survey items that represented the population of EHS and HS families while also obtaining items illustrating significant aspects of the areas of interest. At the conclusion of the review of literature, 79 items were compiled to possibly measure the beliefs and behaviors of EHS and HS parents regarding schooling, literacy, and self-efficacy. These items were further examined in the focus groups, cognitive interviews, expert reviews, and a pilot survey (Blalock, 2007; Ouimet et al, 2004).

Research Question 1: Which Survey Items need to be Modified or Eliminated to Improve Content and Criterion Validity?

Focus groups, cognitive interviews, and expert reviews were utilized to improve content and criterion validity of the items developed during the literature review. The goal of these research methods was also to retain at least four to six items per construct for the pilot study (Hinkin, 1998). In order to reduce the number of items developed during the literature review to create a more suitable hypothesized model for the pilot survey, focus groups were used to determine which items needed to be eliminated or modified (Nassar-McMillan & Borders, 2002). To do this, data collected was analyzed to determine which items needed to be eliminated due to conceptual inconsistency and lack of variance among the participants. Items were also examined for semantic modification in order to truly measure the construct and to contain appropriate language illustrative of the population of study. After the analysis of the focus group data, the number of survey items developed in the literature review was considerably reduced for the cognitive interviews. A 30-item survey was given during the cognitive interviews. Similar to the focus group analysis, an analysis of the cognitive interviews' data revealed the need to modify and eliminate certain items. Experts within the fields of survey development and EHS and HS population were then utilized to help strengthen the validity of the survey. Their comments were used to modify the survey resulting in a hypothesized model of 34 items– five items intended to measure self-efficacy, seven items intended to measure schooling beliefs, seven items intended to measure literacy beliefs, six items intended to measure schooling behaviors, and nine items intended to measure literacy behaviors. Thorough descriptions regarding the results of research question one as related to each of the research methods, focus groups, cognitive interviews, and expert reviews, are discussed below.

Focus groups

Three focus groups were conducted in counties in the Southwest region of Georgia at the EHS and HS facilities. Twelve participants, ten females and two males attended the first focus group all of who were Black, Non-Hispanic race. The second focus group had only three participants all of who were Black, Non-Hispanic females. Five females attended the third focus group in Lee County; three of the females were Black, Non-Hispanic and two of the females were White, Non-Hispanic (see Table 4.1 for the three focus group's demographics). The first focus group lasted 45 minutes, the second focus group lasted 60 minutes, and the third focus group lasted 30 minutes. Focus groups were audio-taped, transcribed, and coded for recurring themes.

Table 4.1

Demographics of Focus Groups

	Focus Group 1	Focus Group 2	Focus Group 3
	n	N	n
Sex	0	0	0
Male	2	0	0
Female	10	3	5
Total	12	3	5
Race			
Black, Non-Hispanic	12	3	3
White, Non-Hispanic	0	0	2
Total	12	3	5

Items from the survey were placed on large cards in which participants placed in stacks according to their degree of agreement (strongly agree, agree, neither, disagree, strongly disagree) or behavior (always, often, sometimes, rarely, never). Participants were observed and questioned during the exercise for feedback about the language used in the items, the meaning of the items, and the efficacy of the items. Blank cards were also made readily available in case new statements evolved from the participants' discussions, but this did not occur. After the exercise, the participants were given a copy of what the survey would look like and were asked for formatting feedback concerning the overall appearance and directions of survey.

In order to improve content and criterion validity of the items developed, participants' actions, dialogue, and facial expressions were analyzed to determine which items needed to be modified or eliminated. Analysis revealed four recurring themes: items were complicated or confusing, not applicable to the population, similar to other items, or did not produce enough variability (see Table 4.2 for how these themes relate to the items developed for the survey). Complicated items resulted in participant statements such as "that's a loaded question" or "that's tricky." Participants stated several times "I didn't understand" or "whatcha mean by that" on items that were too confusing. On several occasions participants commented on items being too similar such as "that's just like the other one" or "didn't I just answer this question." In addition to these themes, certain items were found not to be applicable to the population. For example, certain items repeatedly caused comments such as, "we don't do that" or "my kid ain't old enough yet for that." Lastly, it was determined some items did not produce enough variance among the participants. This was determined by the number of responses that were similar in all three focus groups. These themes were noted in the analysis and used as the basis for re-wording, merging or eliminating items. When a survey item was consistently noted as causing issues, it was examined for modification or elimination. If an item could not be re-worded or merged with another item to increase content and criterion validity, then it was eliminated from the survey. Also, if a troublesome item was similar to a survey item not causing issues, then the troublesome item was eliminated. A thorough review of modified and eliminated items in relation to the recurring theme is discussed below.

Table 4.2

Items Used in Focus Groups and Their Relationship to the Recurring Theme Revealed in Data Analysis

Item	Recurring themes
Beliefs	
My child needs to be taught the names of each letter in order to read.	Complicated Similar to other item
My child can learn to read without knowing letter names.	Complicated Similar to other item
My child can be a good reader without hearing many stories.	Complicated Confusing
My child should play with words, such as making up songs.	Similar to other item
I expect my child to tell family stories to others.	Similar to other item
My child should look at books to help him or her learn to read.	Complicated Similar to other item
My child can learn how to read to without looking at books.	Complicated Similar to other item
My child should learn to read before learning to write.	Complicated Confusing

My child should learn to write before learning to read.	Complicated Confusing
My child should be taught to speak in complete sentences.	Common – no variability
My child should learn how to speak in different situations.	Confusing
My child should learn letter names by singing the ABC song.	Similar to other item
My child should hear many stories in order to become a good reader.	Confusing
My child should ask questions or talk about stories when I read a book to him or her.	Similar to other item
My child should wait until you are finished reading to ask questions or give his or her thoughts.	Similar to other item
My child should not talk while I am reading a book to him or her.	Similar to other item
My child should not write until he or she knows how to form each letter.	Similar to other item
My child can write without being able to form each letters correctly.	Similar to other item
My child should not practice pretend writing and/or drawing.	Similar to other item
My child should pretend write and draw when he or she is learning how to write.	Similar to other item
My child needs to learn the meanings of a lot of words to become a good reader.	Similar to other item

My child can do well in reading without learning the meanings of a lot words.	Similar to other item
My child should write without worrying about spelling.	Similar to other item
My child should worry about spelling when he or she is learning how to write.	Similar to other item
I am comfortable helping my child with school work at home.	Common – no variability
I believe my child does well in school because of what I do for him or her at home.	Common – no variability
I do a good job helping my child learn.	Common – no variability
What I do at home can affect how my child performs at school.	Common – no variability
I expect my child to get more education after high school.	Similar to other item Not applicable to population
I expect my child to complete an educational program after high school.	Similar to other item Not applicable to population
I am confident in my child's abilities at school.	Common – no variability
It is my job to help my child with his or her school work at home.	Common – no variability
I expect my child and me to read every day.	Similar to other item

Behaviors

My child and I read every paper he or she brings home together.	Not applicable to the population

I tell my child how proud I am when he or she does well in school.	Common – no variability
I help my child with his or her homework.	Not applicable to population
I talk to my child during meal times.	Common – no variability
I encourage my child to tell stories for fun.	Similar to other item
I make sure my child does not fool around when reading at home.	Not applicable to population
I help my child sound out words.	Common – no variability
I teach my child how to sound out words.	Common – no variability
I make my child sound out words.	Common – no variability
I teach my child how to correctly say words.	Confusing
I allow my child to choose what he or she wants to read together.	Common – no variability
My child helps me create shopping or grocery lists.	Not applicable to population
I turn the closed caption on while watching television and read it with or to my child.	Not applicable to population
I take my child to the library to read or get a book.	Common – no variability
I re-read things with my child several times.	Common – no variability
I tell my child I want him or her to get more education after high school.	Common – no variability Not applicable to population
I tell my child I want him or her to complete an educational program.	Common – no variability Not applicable to population

I tell my child I want him or her to complete an educational program after high school.	Common – no variability Not applicable to population
I tell my child I want him or her to get more education after high school.	Common – no variability Not applicable to population
I have a variety of reading materials in my home.	Confusing
My child sees me read books, newspapers, mail, recipes, church materials, etc.	Similar to other item
My child sees me writing (handwriting or typing) at home.	Similar to other item
My child needs plenty of drill and practice, like using flash cards, to learn sounds of letters.	Similar to other item
My child uses flash cards to help learn new words.	Similar to other item
I talk with my child about their day at school.	Similar to other item
I keep up with how my child is doing in school.	Similar to other item
When I reading to my child, I encourage him or her to talk to me about what we are reading.	Complicated Confusing
I encourage my child to listen to songs.	Similar to other item
I sing songs with my child.	Similar to other item
I and/or my child sing the ABC song.	Similar to other item

I tell my child family stories.	Complicated Confusing
My child reads with his or her siblings, family members, and/or friends at home.	Similar to other item
I explain difficult words to my child.	Similar to other item
I teach my child new words and what they mean.	Similar to other item
I have my child draw and/or write stories.	Similar to other item
I write with my child.	Similar to other item
My child plays reading and/or writing games/programs on the computer at home or the library.	Similar to other item
I create spelling, learning, and/or reading games for my child.	Similar to other item
My child and I read the road signs on the road together.	Common – no variability
I smile and pay attention when I am talking to my child about their day at school.	Complicated
I tell my child that school is important.	Common – no variability
I tell my child he or she can do well in school.	Similar to other item Common – no variability
I encourage my child to do his or her best.	Similar to other item Common – no variability
I encourage my child to be interested in, explore, and question new things.	Common – no variability

Complicated or confusing items

Many participants found certain questions to be complicated. This occurred often when participants dealt with reversed-score items. Reverse-score items were included on the survey to possibly increase validity by reducing response bias (Hinkin, 1998). However, during the focus groups, participants frequently had issues with these items. Participants stated items such as “My child should hear many stories in order to become a good reader,” and “My child can be a good reader without hearing many stories” were tricky questions. Participants discussed how they “strongly agreed” or “agreed” with both of these items because they said it depended on what made you a good reader. One parent stated, “What do you mean by good? I mean what I think is good is different from what some else. That’s tricky. There are other things that make you a good reader.” “Good” was also used in other items as well, and participants repeatedly stated how this word made the item “tricky.” Participants stated that parents have their own interpretation of what defines a good reader, and this was evident in their discussions of what defines a good reader. One parent stated, “A child has to see how you hold a book, and how you read the words, and look at pictures, and what you do with a book.” Another parent stated, “A child’s a good reader when he can read the words the right way. That don’t take reading a lot…that takes practice.” It was interesting to observe that most parents questioned what was meant by “good reader,” rather than just answering with their own intended meaning. Parents were aware that others, as well as the researcher, would have different interpretations of the item, and were hesitant to answer. Parents either slowed down when answering these items or commented, “I got to think on this one.” However, they were not hesitant to explain their interpretation of the item. For this research, the item was reworded to include “my child should be read to many times,” but the phrase “good reader” remained to be further examined in cognitive interviews.

Other reversed-score items also stated as “tricky” or complicated were:

> My child should learn to read before learning how to write.
> My child should learn how to write before learning how to read
>
> When learning how to write, my child should not worry about spelling
> When learning how to write, my child should worry about spelling.

When talking about these items and other reverse-score items, participants slowed their pace, and facial expressions exhibited signs of confusion. Again participants did not see the reverse nature of the items. One parent stated,

> “Well you say…when learning how to write my child should not worry about spelling and when learning how to write my child should worry about spelling. I guess you either should or you shouldn’t…but I put strongly agree for should worry about spelling and agree for should not…like she said…cause they going to learn how to write like writing those little letters, but I don’t want them writing a bunch of words that ain’t spelled the right way.” Other parents were shaking their heads in agreement (Focus Group 2, March 12, 2013).

Because many of the participants did not understand the difference between the reverse-score items and found them difficult to answer, one from each set of items was eliminated. Because the confusions could also be caused by the way they were worded, these items were furthered examined in the cognitive interviews.

Participants expressed confusion with other items, as well. Confusion was usually derived from what the entire item was referring to or a particular word. When confusion occurred, the participants were asked to explain what they thought the item was referring to or what the word meant. Many of their responses did not correlate with the item’s intended measure of construct. For example, when participants encountered the two items regarding speaking in different situations, “My child should learn how to speak in different situations” and “I teach my child how to speak in different situations,” most parents immediately asked for clarification and their explanation of the item’s intended measure was not the intended idea for the survey. One participant asked, “Do you mean like different languages? Or do you mean inside and outside voice?” The intended meaning behind these items was to identify parents who thought it was important their EHS or HS child knew speaking to a teacher at school might be different than speaking to your friend on the playground. Because of the discrepancies in meaning, and the fact several parents in all three focus groups were unable to grasp what these items were truly trying to measure, they were eliminated from the survey.

Another item parents found confusing was the item that stated, “I have my child read with his or her siblings, family members, and/or friends at home.” One participant asked, “What do you mean…like I read to them and these other people.” Another participants stated, “No, these people don’t, but I do…is that bad? She ain’t got no brother or sister.” The purpose of this item was to highlight the idea that it doesn’t matter who reads to the EHS or HS child, but the parent is making sure their child is read to on a daily basis. From the data collected it was evident this item was confusing, and some parents’ interpreted the meaning behind it negatively; therefore, it was modified for the cognitive interviews.

Another item that was included in the focus group activity, “I make sure my child does not fool around when reading at home,” was found to be confusing among many of the participants. One parent stated, “Whatcha mean? Make sure my child does not fool around when reading at home…you mean like playing around? I don't understand…I don't know how to answer." This item was developed from the literature review because low-income African American families have a tendency to think that helping their child with the school work at home means making sure they focus on their assignment and were known for using the phrase "no fooling around" frequently. Because of the recurring theme of confusion among participants and the participants' inability to understand the true meaning of the item, it was eliminated from the survey.

Items not applicable to the population

The focus group data also indicated that some survey items were not applicable to the participants. Many of the belief and behavior items on the survey were developed from the literature illustrating low-income African American and EHS and HS parents. For example, the literature stated these families turn on the closed caption on their television and read it with their child when watching television. However, when participants read, "I turn the closed caption on while watching television and read it with or to my child," during the focus groups, every participant stated they had never performed this behavior. Other items that were not relevant to the population were "I help my child with his or her homework," and "My child and I read every paper he or she brings home together." Many parents stated, "They don't give homework," and "I don't want you to think I don't help my child if I put no because she don't bring anything home." Participants also stated similar comments regarding the item "My child and I read every paper he or she brings home together." One participant stated, "She don't bring home much and some of those things she don't need to read." Since these items did not accurately describe the population of interest, these items were eliminated from the survey.

Items similar to other items

Participants found many of the items to be so similar that they did not understand how to answer. For example, parents did not see the difference in “I expect my child to get more education after high school” and “I expect my child to complete an educational program after high school.” Parents also did not see the difference in “I keep up with how my child is doing in school” and “I talk with my child about their day at school.” Participants commented, “Didn’t I just answer that question?” and “You know…this question just like the other one.” When items were too similar for participants to distinguish the difference, one was eliminated from the survey or they were merged or modified so this would not be an issue among the participants.

Items did not produce enough variability

It was also determined from the data collected that some items did not provide enough variability among the participants in order to include it on the hypothesized survey. These items were determined by the amount of similar responses observed by the participants. Some of these items were, “I tell my child how proud I am when he or she does well in school,” “I encourage my child to do his or her best,” and “I allow my child to choose what he or she wants to read together.” Parents repeatedly answered with “strongly agree” for belief items and “often” for behavior items. Some of these items were eliminated because it was determined parents would always answer a certain way due to social desirability. Other items were modified to increase answer variability.

Items such as, “I do a good job helping my child learn” was modified to “I am proud of how well I help my child at home,” and the item, “I am confident in my child’s abilities at school” was modified to “I am confident my child will do well in school.” These modifications were made to increase the chances of parents’ answering honestly; therefore reducing the risk of social desirability.

Validation of the literature review

Analysis of the focus groups revealed another important theme: validation of research. As mentioned, one of the goals of the survey was to help EHS and HS facilities better understand their population; therefore, the items developed during the literature review were based on literature illustrating the parental beliefs and behaviors of population of EHS and HS families. This was clearly achieved due to many of the comments participants made. Several times parents would say, “Oh, yeah I do that or my child does that every day.” Some of these items were “I take my child to the library to read or get a book,” “I sing songs with my child,” and “My child and I read the road signs together.” One parent stated, “Everyday everywhere we go he wants to question…he wants to know what the signs for, what you cook with this…read the grocery store sign, Mama. And, I have to answer him or he won’t be quiet.” Because these items illustrated the population of study as stated in the literature, these items were neither eliminated nor modified.

Parents also stated several times, “I like this survey,” or when asked how other parents would like the survey, participants stated, “Parents going to like this survey…they going to take it…it’s easy.” Parents seemed to enjoy interacting and talking about literacy. After one of the focus groups one of the EHS and HS social workers even shared with other parents about how great the session was and suggested coming to the next one. Because parents enjoyed talking about the self-efficacy, schooling, and literacy items, lengthy discussion with all parents participating were evident in all three focus groups. One of these items was regarding if children should or should not talk while reading a book. A couple of parents had the following conversation:

> Parent 1: They need to be quiet and listen.
> Parent 2: Yeah, they got to ask questions after the story. I be saying, "Be quiet until I get done reading."
> Parent 3: Depends on what kind of talking, though?
> Parent 1: Well, maybe they should be talking…like asking questions in case they forget…keep them remembering the story.
> Parent 3: I think it has something to do with their motivation to keep reading.
> Parent 2: Yeah, I like that.

Formatting Modifications

After the focus group exercise, participants were also given a copy of what the survey would look like with the directions and Likert scale. Immediately, parents made comments regarding the Likert scale or "their way to answer." They did not understand how to answer with the range format and only "1" and "5" having labels of "never" and "always" for behavior items and "strongly disagree" and "strongly agree" with the beliefs items. It was explained to the parents that because of the statistical procedure wanting to be used in the pilot study that the other numbers (2, 3, 4) could not be labeled. A suggestion was discussed to change the Likert behavior scale to help parents better understand how to answer. For example, the parents were asked if the Likert scale was changed for behaviors to "1" being never and "5" being daily would they better understand what 2, 3, 4 meant without labels. Most parents said this change would not help. One parent added, “When you mean daily do you just mean Monday to Friday because that when they in school…because Saturday and Sunday we don’t think about no more school until Sunday night.” No solution for the confusing Likert scale was discovered, but was further examined with parents in the cognitive interviews. Parents also stated that the directions need to be more specific in regarding their head start and early head start children.

Other formatting modifications were made due to data collected in focus groups. The directions for the survey and some of the survey items were modified to better explain to the parents that they should be answering the survey items regarding their EHS and HS child only. When talking about some items, parents mention their children not in EHS or HS, and other family members’ and friends’ behaviors and beliefs. It is important for the validity of the survey parents answer items based off of their behaviors and beliefs and their EHS and HS child. Another formatting issue revealed in the data was the overall appearance of the survey. One parent stated that the survey would be easier to read if there were equal spaces between each of the items. Also, the last item on the first page was continued on page two, and one parent stated that it was hard to answer because the item was on one page and the Likert scale was on the other page. These formatting modifications were made to increase participation among the parents, as well, as increasing the return of completed surveys during the pilot survey.

As a result of this research method, 31 items were eliminated while 46 items were either combined or modified to increase content and criterion validity (see Table 4.3 for eliminated items and Table 4.4 for modified items). The remaining items comprised a 30-item survey for the cognitive interviews: five self-efficacy items, four schooling belief items, eight literacy belief items, four schooling behaviors items, and nine literacy behavior items. A copy of survey after the focus groups, Parent Behavior and Belief Survey, can also be found in Appendix D.

Table 4.3

Items Eliminated after Focus Groups

Item	Reason for Elimination
Beliefs	
My child needs to be taught the names of each letter in order to read.	Complicated Similar to other item
My child can learn to read without knowing letter names.	Complicated Similar to other item
My child can be a good reader without hearing many stories.	Complicated Confusing
My child should play with words, such as making up songs.	Similar to other item
I expect my child to tell family stories to others.	Similar to other item
My child should look at books to help him or her learn to read.	Complicated Similar to other item

My child can learn how to read to without looking at books.	Complicated Similar to other item
My child should learn to read before learning to write.	Complicated Confusing
My child should learn to write before learning to read.	Complicated Confusing
My child should be taught to speak in complete sentences.	Common – no variability
My child should learn how to speak in different situations.	Confusing
My child should learn letter names by singing the ABC song.	Similar to other item
My child and I read every paper he or she brings home together.	Not applicable to the population – Parents repeatedly stated their children do not bring many papers home.
I tell my child how proud I am when he or she does well in school.	Common – no variability
I help my child with his or her homework.	Common – no variability Not applicable to population because they do not have much homework

Behaviors

I talk to my child during meal times.	Common – no variability

I encourage my child to tell stories for fun.	Similar to other item
I make sure my child does not fool around when reading at home.	Not applicable to population
I help my child sound out words.	Common – no variability
I teach my child how to sound out words.	Common – no variability
I make my child sound out words.	Common – no variability
I teach my child how to correctly say words.	Confusing
I allow my child to choose what he or she wants to read together.	Common – no variability
My child helps me create shopping or grocery lists.	Not applicable to population – Parents repeatedly reported their children cannot write.
I turn the closed caption on while watching television and read it with or to my child.	Not applicable to population
I take my child to the library to read or get a book.	Common – no variability
I re-read things with my child several times.	Common – no variability

I tell my child I want him or her to get more education after high school. I tell my child I want him or her to complete an educational program. I tell my child I want him or her to complete an educational program after high school. I tell my child I want him or her to get more education after high school.	Common - no variability Not applicable to population Parents repeatedly stated their children are too young to talk about education after high school.

Table 4.4

Items Modified After Focus Groups

Item(s)	Reason Modified	Modified Item for Cognitive Interview
Beliefs		
• My child should hear many stories in order to become a good reader.	Confusing	My child should be read to many times in order to become a good reader.*
• My child should ask questions or talk about stories when I read a book to him or her. • My child should wait until you are finished reading to ask questions or give his or her thoughts. • My child should not talk while I am reading a book to him or her.	Combined - Similar items	My child should not talk or ask question about the story while I am reading a book to him or her.*

• I have a variety of reading materials in my home.	Confusing – needed to be reworded to measure the intended construct	My child should not waste time reading newspapers, recipes, church materials, and/or magazines and still do well in reading.*
• My child should not write until he or she knows how to form each letter. • My child can write without being able to form each letters correctly. • My child should not practice pretend writing and/or drawing. • My child should pretend write and draw when he or she is learning how to write.	Combined - Similar items	My child should not waste time pretend writing or drawing when he or she can learn to write.*
• My child needs to learn the meanings of a lot of words to become a good reader. • My child can do well in reading without learning the meanings of a lot words.	Combined - Similar items	My child can become a good reader without learning the meanings of a lot of words.*
• My child should write without worrying about spelling. • My child should worry about spelling when he or she is learning how to write.	Combined - Similar items	My child should worry about spelling when learning how to write.*

• My child sees me read books, newspapers, mail, recipes, church materials, etc. • My child sees me writing (handwriting or typing) at home.	Combined - Similar items	My child should see me read and/or write every day.*
• My child needs plenty of drill and practice, like using flash cards, to learn sounds of letters. • My child uses flash cards to help learn new words.	Combined - Similar items	My child needs plenty of drill and practice, like using flash cards every day, to learn the sounds of letters or new words.*
• I am comfortable helping my child with school work at home.	Common – provided no variability in the way it was worded	I get nervous when my child asks me to help him or her learn how to read or write.*
• I believe my child does well in school because of what I do for him or her at home.	Common – provided no variability in the way it was worded	When my child does well in school, it is because of what I do for him or her at home.
• I do a good job helping my child learn.	Common – provided no variability in the way it was worded	I am proud of how well I help my child at home.*
• What I do at home can affect how my child performs at school.	Common - provided no variability in the way it was worded	What my child does outside of school can affect how well he or she does in school.

• I expect my child to get more education after high school. • I expect my child to complete an educational program after high school.	Combined - Similar items Not applicable to population – parents repeatedly reported their children were not old enough to talk about that yet	I expect my child to go to college or technical school one day.*
• I am confident in my child’s abilities at school.	Common – provided no variability in the way it was worded	I am confident my child will do well in school.
• I talk with my child about their day at school. • I keep up with how my child is doing in school.	Combined - Similar items	It is important to ask my child about his or her day at school every day.*
• It is my job to help my child with his or her school work at home.	Common – provided no variability in the way it was worded	I am just as important as my child’s teacher when it comes to helping my child learn.
Behaviors		
• When I reading to my child, I encourage him or her to talk to me about what we are reading.	Complicated Confusing	I talk with my child about the story while reading to him or her.*
• I encourage my child to listen to songs. • I sing songs with my child. • I and/or my child sing the ABC song.	Combined - Similar items	I encourage my child to listen to and/or sing songs every day.

• I tell my child family stories.	Complicated Confusing	I tell my child stories about our family and/or friends every day.
• I expect my child and me to read every day. • My child reads with his or her siblings, family members, and/or friends at home.	Combined - Similar items	I make sure my child is read to every day.*
• I explain difficult words to my child. • I teach my child new words and what they mean.	Combined - Similar items	I explain new words and what they mean to my child every day.
• I have my child draw and/or write stories. • I write with my child.	Combined - Similar items	I encourage my child to draw and/or write stories every day.*
• My child plays reading and/or writing games/programs on the computer at home or the library. • I create spelling, learning, and/or reading games for my child.	Combined - Similar items	I have my child play learning/reading games every day (ex. Flash cards, computers games, cell phone learning games or apps).
• My child and I read the road signs on the road together.	Common – provided no variability the way it was worded	I read the road and store signs with my child every time we go somewhere.
• I smile and pay attention when I am talking to my child about their day at school.	Complicated – parents stated it was a “loaded” question with smile and pay attention	I make sure to smile every time I talk to my child about their day at school.*

• I tell my child that school is important.	Common – provided no variability the way it was worded	I explain to my child how important school is every day.*
• I tell my child he or she can do well in school. • I encourage my child to do his or her best.	Combined – Similar Items Common – provided no variability the way it was worded	I make sure to encourage my child to do his or her best in school every morning.*
• I encourage my child to be interested in, explore, and question new things.	Common – provided no variability the way it was worded	I encourage my child to be interested in, explore, and question new things every day.*

Note. Items with an asterisk (*) were again modified after cognitive interviews or expert reviews.

Cognitive interviews

In order to further increase content criterion validity among the items on the survey, three cognitive interviews were conducted. Three participants were recruited after observation of their ability to think aloud well during the focus groups (Cecil, 2011). The interviews were conducted at EHS and HS facilities in the Southwest region of Georgia. These interviews were conducted with two females and one male. During the cognitive interviews, participants were given a copy of the Parent Behavior and Belief Survey. Participants were asked to read each of the items aloud and think aloud as they answered the item (Desimone & Le Floch, 2004). Participants were also asked to paraphrase items, explain responses, define meanings of words, and identify areas of difficulties. Behaviors such as skipping questions, putting answers in the wrong place, and changes in participants' facial expressions were noted. These behaviors, as well as, comments made by the participants were analyzed and used to make modifications and eliminate items on the survey (Desimone & Le Floch, 2004).

Data from the cognitive interviews revealed common themes regarding the wording of certain items. One of the first themes that became evident was the negativity some items provoked. These items caused participants to hesitate in answering, change their facial expression, and ask questions. For example, one item on the survey was “My child should not waste time reading newspapers, recipes, church materials, and/or magazines when he or she is learning how to read.” One participant stated, “I don’t know how to answer this question. I mean I feel like they can, but the question seems so…mean.” Another negatively written item causing issues stated “My child should not waste time pretend writing or drawing when he or she is learning to write.” One participant stated, “Gosh, waste time seems bad. I like for them to practice at least.” These items were modified to the following, “My child should not practice pretend writing and/or drawing when he or she is learning how to write letters and/or stories.” According to the literature, these items were important in understanding parental literacy beliefs; therefore, modification rather than elimination was best for the overall purpose of the survey (Baker and Schner, 2002; Baumrind, 1967; Dutch, 2003; Coleman, 1961; Compton-Lilly, 2004, 2011; Heath, 1983; Hindman & Wasik, 2008; Steinberg, Lamborn, Dornbusch, & Darling, 1992).

Another item that caused issues with negativity due to the wording of the statement was, “I get nervous when my child asks me to help him or her learn how to read or write.” One participant stated, “I don’t get nervous, so I don’t know what to put.” This participant seemed bothered by the item and even said, “I don’t think this question should be on here. Parents shouldn't get nervous helping their kids." Another participant stated, "I don't get nervous all the time, maybe sometime, but then I remember how to help her and I am ok." Instead of removing this item, it was modified to state, "I sometimes get nervous when my child asks me to help him or her learn how to read or write." This modification was made to increase variability and to result in more accurate answers. Parents might not answer truthfully to the original statement because they do not want to admit they do not know how to help their child; however, parents might answer the modified item more truthfully because it only requires them to admit to sometimes getting nervous when helping their child at home.

Because of the issues items with a negative connotation created, the item "My child should not talk or ask questions about the story while I am reading a book to him or her" was also modified. Another issue with this item was the word "talk." Data analysis revealed participants consistently questioned, "What did 'talk' mean?" One participant stated, "If you mean talk about stuff that ain't about the book, then they need to keep their mouth closed until I am done." Another parent stated, "I think it's rude to talk, but I am okay with them asking questions." The intended meaning behind the word was to include children making comments about the story while someone reads to them. In order to increase validity and reduce the negativity, this item was modified to "My child should wait until you are finished reading to ask questions or give his or her thoughts." Other items on the survey containing the word "talk" were also modified to better explain the meaning.

Another consistent word usage issue was with items that contained the word, "good." These items were "My child should be read to many times in order to become a good reader," and "My child can become a good reader without learning the meanings of a lot of words." When asked to explain what these items meant, all three participants gave different answers. The first participant stated, "You are a good reader when you say the words the right way." The second participant stated, "You are a good reader when you can read a lot," and the third participant stated, "You are a good reader when you can say the words correctly and understand what you read." Because of the inconsistency of measurement by using the word "good," "good" was eliminated from the items and replaced with "do well in reading." Although this modification seemed to reduce the confusion caused by using the word "good," the real issue of what really defines a "good" reader or what does it mean to "do well in reading," was not entirely solved in this study. Despite having similar backgrounds, these parents have different ideas and experiences that lead to their own interpretations as in this example. Further research is needed to better illustrate these ideas in the survey.

Other items were also modified to clear up any meaning inconsistency because of certain words used in the items. The item "I make sure my child is read to every day" was modified after the interviews to "I make sure my child is read to by someone every day." All three participants thought the original item was asking if they made sure they read to their child every day, not thinking this item could include a sibling, friend, or family member. Also, the item, "I encourage my child to draw and/or write stories every day" was modified to include "draw pictures of a story" because the participants were not clear on what their children should be drawing.

Two items were also removed from the survey after the cognitive interviews. The item "My child should worry about spelling when learning how to write" was eliminated because the participants expressed how their children really aren't at the age to be worry about spelling. The other item eliminated was "I am proud of how well I help my child at home." The participants stated that all parents would answer the same way because of social desirability. They stated that parents would not want to look bad and admit they were not proud of how well they helped their child. To increase the internal validity, of the survey that issues like these can cause, the item was eliminated.

Data analysis of the cognitive interviews also revealed consistent formatting issues. As mentioned in the focus groups, participants again stated that it was hard to understand how to use the Likert scale. Because the Likert scale only has a label for why they would choose 1 or why they would choose, one participant stated:

> "You will have parents who do not understand why they would put 2, 3, or, 4 without a label. You need to spell it out for some parents. Parents might be willing to do the survey, but once they realize they don't understand the directions then they will not do it" (Cognitive interview 1, March 27, 2013).

Because of the inability to label the Likert scale due to the statistical analysis that will be used for the pilot survey, the Likert scale labels was changed for behaviors to "Not Likely" for "1" and "Very Likely" for "5". This modification was made because parents might be able to understand how to answer with a "2," "3," or "4" with these labels. No modification was made to the belief Likert scale labels after the cognitive interviews because participants seemed to understand what each Likert scale number meant without a label. However these modifications still did not diminish the problems parents would have when completing the survey and additional modifications were made after the expert reviews.

Another formatting issue was with the order of the items. The way the survey items were set up for the cognitive interview literacy items came before the schooling items. Because of this, participants would consistently use literacy terms when explaining how to answer the schooling items. Because the purpose of the survey was to measure these constructs separately, the schooling items were moved to precede the literacy items. This modification was made to help parents separate the two constructs when completing the survey.

Another participant made a formatting suggestion about adding another category to the ethnicity item. An item on the survey asks parents to choose the ethnicity that best describes them. The participant stated, “My children are half-black and half-Arabic, but there is nothing for me to choose.” Also, it was observed participants seemed confused when answering this item because the directions were not clear. Some participants circled their ethnicity while others placed a check by the one that best described them. To better represent the population corresponding to how the federal government collects data (Federal Register, 1997) and reduce confusion on how to answer the item, this items was modified to ask the participant to “check their race” rather than “choose their ethnicity”, and an option for participants to check “other” and write out their race was added.

Data from the cognitive interviews revealed that at least two participants were answering some of the items based on what their child did at school. Parents would explain or answer items using the phrase, “Oh, yeah he does that at school.” The purpose of the survey is to measure the parents’ beliefs and behaviors within the home environment; therefore, the directions for the survey were modified to be clearer to parents to answer the items about their beliefs and behaviors within their home environment.

Cognitive interview participants were also given the cover letter to examine. The cover letter for the survey included the title and the directions on how to turn the survey into their child’s teacher. One participant suggested also putting information about confidentiality and purpose of the survey on the cover letter because as he said, “most parents are going to read the cover letter and immediately flip to the signature page, sign it, complete the survey, and turn it in, not paying any attention to the consent form.” This suggestion was taken and a simple and bold statement about the confidentiality and purpose of the survey was included on the cover letter.

Data analysis of the cognitive interviews resulted in a 28-item survey: two items were eliminated from the 30-item survey developed after the focus groups and 16 items were modified. Within the remaining 28 items, four items remained within self-efficacy, four items within schooling beliefs, seven items within literacy beliefs, four items within schooling behaviors, and nine items within literacy behaviors (See Table 4.5 for data analysis of items after the cognitive interviews). The modified cover letter and survey after the cognitive interviews can also be found in Appendix E and Appendix F.

Table 4.5

Data Analysis of Items after Cognitive Interviews

Item for Cognitive Interview	Reason for Modification or Elimination	Item After Cognitive interview
I get nervous when my child asks me to help him or her learn how to read or write.	Parents stated this was hard to answer.	I sometimes get nervous when my child asks me to help him or her learn how to read or write.
When my child does well in school, it is because of what I do for him or her at home.		When my child does well in school, it is because of what I do for him or her at home.
I am proud of how well I help my child at home.	Eliminated - it provided no variability in results. It was also similar to another self-efficacy questions	
I am confident in my reading skills (pronouncing words, asking and answering questions, understanding what I read).		No change
What my child does outside of school can affect how well he or she does in school.		No change
I expect my child to go to college or technical school one day.	Participants repeatedly read aloud technical college instead of technical school.	I expect my child to go to college or technical college one day.
I am confident my child will do well in school.		No change

It is important to ask my child about his or her day at school every day.		No change
I am just as important as my child's teacher when it comes to helping my child learn.		No change
My child should be read to many times in order to become a good reader.	Parents had a hard time defining "good."	My child should be read to many times in order to do well in reading.*
My child should not talk or ask question about the story while I am reading a book to him or her.	Item needed a more positive connotation. Also, participants wanted "talking" to be defined more.	My child should wait until you are finished reading to ask questions or give his or her thoughts. *
My child should not waste time reading newspapers, recipes, church materials, and/or magazines when he or she is learning how to read.	Item needed a more positive connotation.	My child can practice reading newspapers, recipes, church materials, and/or magazines and still do well in reading.
My child should not waste time pretend writing or drawing when he or she can learning to write.	Item needed a more positive connotation. "Waste time" seemed too negative to parents. This item was also similar to another item, so they needed to be combined.	My child should not practice pretend writing and/or drawing when he or she is learning how to write letters and/or stories.*
My child can become a good reader without learning the meanings of a lot of words.	Parents had a hard time defining "good."	My child can do well in reading without learning the meanings of a lot of words.

My child should worry about spelling when learning how to write.	Item needed to be eliminated because it was not applicable to population	
My child should see me read and/or write every day.		No change*
My child needs plenty of drill and practice, like using flash cards every day, to learn the sounds of letters or new words.	Participants repeatedly said “lots” instead of “plenty” and did not say “drill” when the reading this item aloud.	My child needs lots of practice, like using flash cards every day, to learn sounds of letters or new words.*
I talk with my child about the story while reading to him or her.	Participants wanted “talking” to be more defined.	When I read to my child, I encourage him or her to talk to me about what we are reading.
I encourage my child to listen to and/or sing songs every day.		No change
I tell my child stories about our family and/or friends every day.		No change
I make sure my child is read to every day.	Parents assumed this meant that they read to the child. The item needed more clarification.	I make sure my child is read to by someone every day.
I explain new words and what they mean to my child every day.		No change
I encourage my child to draw and/or write stories every day.	Participants needed “draw” to be more defined.	I encourage my child to write stories or draw pictures of a story every day.*

I have my child play learning/reading games every day (ex. Flash cards, computers games, cell phone learning games or apps).		No change
I read the road and store signs with my child every time we go somewhere.		No change
I point to words every time I read to my child.		No change
I make sure to smile every time I talk to my child about their day at school.	Parents stated that they could smile, but still not care about the child's day at school. They questioned if this was okay. Item needed to be further clarified to counteract this belief.	I make sure to have a positive attitude every time I talk to my child about their day at school.*
I explain to my child how important school is every day.	Parent repeatedly said that they tell their child how important it is to get an education rather than using the term "school."	I explain to my child how important it is to get an education every day. *
I make sure to encourage my child to do his or her best in school every morning.		No change*
I encourage my child to be interested in, explore, and question new things every day.	Parents stated that this was a loaded question by asking several things.	I encourage my child to question and explore new things every day.

Note. Items with an asterisk (*) were again modified after expert reviews.

Expert reviews

Further examination of the content and criterion validity of the survey items was completed in four expert reviews (Dillman, 2007). Two reviews were competed by two EHS and HS specialists, one was completed by an experienced teacher recommended by one of the EHS and HS specialists, and the other review was completed by a higher education faculty member who has experience with survey development and with the EHS and HS community.

Experts identified the degree the item matched the idea it was aiming to measure with a Likert scale. For example, “5” meant the item was a “Very good” match, “4” meant it was a “Good” match, “3” meant it was a “Barely Acceptable” match, “2” meant it was a “Poor” match, and “1” meant it was a “Very poor match.” Experts also left comments underneath items to explain their reasoning behind their choices. To increase the validity of the survey, the data collected was used to make further modifications to the wording of the items and the format of the survey documents.

The experts reviewed four items measuring self-efficacy, four items measuring schooling beliefs, seven items measuring literacy beliefs, four items measuring schooling behaviors, and nine items measuring literacy behaviors. Reviewers gave all items except for one a “4” or “5” in their abilities to measure the intended construct. The one item that did not receive a high rating by one of the reviewers was an item intended to measure parental self-efficacy, “I sometimes get nervous when my child asks me to help him or her learn how to read or write.” One of the EHS and HS specialists rated this item a “2” and commented, “It is ridiculous and parents either don’t feel this or would not answer the right way. Parents of these young kids know much of what they are learning and don’t get nervous.” Because the other reviewers rated the item a “4” or “5,” it was not eliminated from the survey.

Even though many of the items received high ratings, the reviewers had comments to say about some of the wording used in the items. One recurring theme was the issue of including “every day” in some of the items. At least two of the reviewers, stated that “every day” was not a natural behavior for some parents, such as, “I explain new words and what they mean to my child every day.” Reviewers also stated that when “every day” was in a belief item such as, “It is important to ask my child about his or her day at school every day,” the intended measure focused more on the frequency of the belief rather than the importance of the belief. Because of these comments, the phrase “every day” was eliminated from certain items. “Every day” did remain in other items such as “It is important my child see me read and/or write every day” and “I encourage my child to question and explore new things every day.” Incorporating “every day” in these items should be natural for the parents, and the items are important for measuring the intended construct.

Another recurring theme among the reviewers was the use of the word “should” in some of the literacy belief items. Reviewers stated the use of this word could bring judgment on the parents, and it would be best to reword items without the word “should.” Therefore, items such as “My child should be read to many times in order to do well in reading” was modified to “It is important for my child to be read to many times in order to do well in reading,” and “My child should wait until you are finished reading to ask questions or give his or her thoughts” was modified to “It is important my child wait until I am finished reading to ask questions or give his or her thoughts.” Other items were modified to exclude the word "should." See Table 4.6 for the data analysis of all the items after the expert reviews.

Table 4.6

Data Analysis of Items after Expert Review

Item For Expert Review	List of Expert Ratings & Possible Modification	Item After Expert Review
I sometimes get nervous when my child asks me to help him or her learn how to read or write.	5, 5, 2, 5 Despite the low rating by one of the reviewers, this item remained on the survey because other reviewers thought it was a good match.	I sometimes get nervous when my child asks me to help him or her learn how to read or write.
When my child does well in school, it is because of what I do for him or her at home.	5, 5, 5, 5	No change
I am confident in my reading skills (pronouncing words, asking and answering questions, understanding what I read).	5, 5, 5, 5	No change
I am just as important as my child's teacher when it comes to helping my child learn.	5, 5, 5, 5	No change
What my child does outside of school can affect how well he or she does in school.	5, 5, 5, 5	No change

I expect my child to go to college or technical college one day.	5, 5, 4, 4	No change
I am confident my child will do well in school.	5, 5, 5, 5	No change
It is important to ask my child about his or her day at school every day.	5, 5, 5, 4 Reviewers suggested taking out “every day” because this was not natural and it seemed to measure the frequency of the belief and not the importance of the behavior.	It is important to ask my child about his or her day at school.
My child should be read to many times in order to do well in reading.	5, 5, 5, 4 Reviewers suggested taking out “should” because it might make the parents feel like they are being judged.	It is important for my child to be read to many times in order to do well in reading.
My child should wait until you are finished reading to ask questions or give his or her thoughts.	5, 5, 5, 4 Reviewers suggested taking out “should” because it might make the parents feel like they are being judged.	It is important my child wait until I am finished reading to ask questions or give his or her thoughts.
My child can practice reading newspapers, recipes, church materials, and/or magazines to help him or her do well in learning to read.	5, 5, 5, 4	No change

My child should not practice pretend writing and/or drawing when he or she is learning how to write letters and/or stories.	5, 5, 5, 4 Reviewers suggested taking out “should” because it might make the parents feel like they are being judged.	It is important my child practice pretend writing and/or drawing when he or she is learning how to write letters and/or stories.
My child can do well in reading without learning the meanings of a lot of words.	5, 5, 5, 5	No change
My child should see me read and/or write every day.	5, 5, 5, 4 Reviewers suggested taking out “should” because it might make the parents feel like they are being judged.	It is important my child see me read and/or write every day.
My child needs lots of practice, like using flash cards every day, to learn sounds of letters or new words.	5, 5, 5, 4 Item was modified to be parallel with other changes made to items.	It is important for my child to use flash cards and repetition to learn sounds of letters or new words.
I make sure to have a positive attitude every time I talk to my child about their day at school.	5, 5, 4, 4 Reviewers suggested taking out “positive attitude” because parents would have a hard time defining it. Some might automatically feel like a bad parent.	I smile when I talk to my child about their day at school.
I explain to my child how important it is to get an education every day.	5, 5, 4, 4 Reviewers suggested taking out “every day” because this was not natural for this behavior.	I explain to my child how important it is to get an education.

I make sure to encourage my child to do his or her best in school every morning.	5, 5, 5, 4 Reviewers suggested taking out “every day” because this was not natural for this behavior.	I make sure to encourage my child to do his or her best in school.
I encourage my child to question and explore new things every day.	5, 5, 5, 5	No change
When I read to my child, I encourage him or her to talk to me about what we are reading.	5, 5, 5, 5	No change
I encourage my child to listen and/or sing songs every day.	5, 5, 5, 5	No change
I tell my child stories about our family and/or friends every day.	5, 5, 5, 4 Reviewers suggested taking out “every day” because this was not natural for this behavior.	I tell my child stories about our family and/or friends.
I make sure my child is read to by someone every day.	5, 5, 5, 4 A reviewer suggested “by someone” was awkward.	I make sure somebody reads to my child every day.
I explain new words and what they mean to my child every day.	5, 5, 5, 4 Reviewers suggested taking out “every day” because this was not natural for this behavior.	I explain new words and what they mean to my child.

I encourage my child to write stories or draw pictures of a story every day.	5, 5, 5, 4 Reviewers suggested taking out "every day" because this was not natural for this behavior.	I encourage my child to write stories or draw pictures of a story.
I have my child play learning/reading games every day (ex. flash cards, computer games, cell phone learning games or apps).	5, 5, 5, 4	No change
I read the road and store signs with my child every time we go somewhere.	5, 5, 5, 5	No change
I point to words every time I read to my child.	5, 5, 5, 4	No change

According to one reviewer, the areas of schooling beliefs, schooling behaviors, and self-efficacy needed more items to measure the construct before the pilot survey. Therefore, the focus group and cognitive interview data was reexamined. Items that were originally eliminated during these research methods were reconsidered. Items originally considered good matches in measurement according to the literature review and did not seem to cause many issues in the focus groups and cognitive interviews were added to the survey. One item was added to self-efficacy, three items were added to schooling beliefs, and two items were added to schooling behaviors (see Table 4.7). The final survey to be piloted contained 34 items.

Table 4.7

Items Added to Survey after Expert Review

Item	Construct
I can teach my child.	Self-efficacy
It is only the teacher's job to help my child learn.	Schooling Belief
It is important for my child to graduate/get a diploma from a college or technical college one day.	Schooling Belief
It is important to keep up with how my child is doing in school by talking with his or her teacher.	Schooling Belief
I help my child with his or her schoolwork.	Schooling Behavior
I tell my child I am proud of him or her.	Schooling Behavior

The reviewers also made comments on the format of the cover letter and survey. One major formatting issue was the Likert scale. As mentioned in the focus groups and cognitive interviews, all four reviewers said the directions needed to be specific or the Likert scale needed to be changed in order for parents to fully understand how to complete the survey. Because of this recurring theme in the previous two research methods, it was decided to modify the directions. Because the Likert scale could not be modified to be more specific due to issues it would cause in pilot survey statistical analysis, the directions were modified to give the parent more guidance in completing the survey. The following is an example of the changes made to the directions regarding parental behaviors items. Similar changes to the directions regarding the parental belief items were made.

> First set of directions: Please circle the number that represents how likely you are to perform the following behaviors with your Early Head Start or Head Start child outside of school. (1 = Not Likely; 5 = Very Likely).
>
> Second set of directions: Please circle the number ranging from 1 (never) to 5 (always) that represents how likely you are to perform the following behaviors with your Early Head Start or Head Start child outside of school. For example, if you choose "2," then it might mean you rarely perform the behavior, and if you choose "4," then it might mean you often perform the behavior. If you choose "3," then you might sometimes perform the behavior.

Based on some of the reviewer's comments, other formatting modifications were made to the survey and cover letter. At the beginning of the survey, the parents are asked to check one or more categories that best describes their race. One of the reviewers suggested reviewing Dillman's (2007) guidelines on survey formatting because, typically, items regarding ethnicity and race are asked at the end of surveys. His work was reviewed, and the ethnicity item was moved to the end of the survey. Reviewers also commented on how the title of the research project should be more explicit on the cover letter and survey. Therefore, the title was changed from "Parent Behavior and Belief Survey" to "Parent Belief and Behavior Survey: Schooling, Literacy, and Self-Efficacy," and was included on the cover letter and survey. The modified cover letter and survey after the expert reviews can be found Appendix G and Appendix H.

Research Question 2: What is the Best Model Fit to Measure Early Head Start and Head Start Parents' Beliefs and Behaviors Regarding Schooling, Literacy, and Self-efficacy?

Pilot survey

Two hundred and seventy surveys were returned from the three counties randomly sampled from the EHS and HS Southwest Georgia region. A total of n = 609 students were enrolled in the counties sampled; therefore, the pilot survey had an approximate 44% return rate among these three centers. Approximately, 89% of the parents who returned surveys were African American, 6% were White, Non-Hispanic, and 2% were Hispanic. The remaining 3% of the participants chose one or a combination of the races remaining on the survey (See Table 4.8 for demographics of pilot study participation). Also, approximately 71% of the parents who returned a survey had one child within the 4 to 5 age range. Nineteen percent had one child at the age of three, and seven percent had one child between the ages of birth and two. The remaining participants stated they had at least two children in EHS and HS with 2% of the participants having one child age 3 and another child within the 4 to 5 range.

Table 4.8

Pilot Survey Sample Demographics (n = 270)

Race	n	Approximate Percentage
Black, Non Hispanic	232	89%
Hispanic	5	2%

White, Non Hispanic, other	15	6%
Black, American Indian, Alaska Native, White	2	.8%
Black, Hispanic	2	.8%
Black, White	2	.8%
Hispanic, White	1	.4%
Other, Black	1	.4%

Note. *Ten participants did not report their race.

The goal of this research method was to develop the best model fit to measure Early Head Start and Head Start parents' beliefs and behaviors regarding schooling, literacy, and self-efficacy. Before the confirmatory factor analysis, multivariate assumptions were tested on the hypothesized model of 34 items: 5 items measuring self-efficacy, 7 items measuring schooling beliefs, 7 items measuring literacy beliefs, 6 items measuring schooling behaviors, and 9 items measuring literacy behaviors (See Figure 4.1 for the hypothesized model and Table 4.9 for individual survey items). Data was examined for the following assumptions: missing data, univariate and multivariate outliers, normality among the ungrouped data, and homogeneity of variance/covariance matrices. This five-factor model was then examined for factorial validity using confirmatory factor analysis. In addition to the five-factor model, nested model was examined on the basis of more robust multivariate assumptions guidelines. Univariate and multivariate outliers were identified by examining z-scores ($z > |3.29|$), skewness and kurtosis (> |1.0|), histograms, and Mahalanobis' distance ($p < .01$) (Tabachnick & Fidell, 2013). The model upholding all of these assumptions was reduced to a nested two-factor model, schooling beliefs and schooling behaviors, and was further examined for factorial validity using confirmatory factor analysis. However, the nested model was not the intended goal of the research; therefore, it was tested for statistical difference from the five-factor model using the chi-square difference test. Both the five-factor model and two-factor nested model revealed good model fit statistics; therefore, both models are discussed.

Figure 4.1

Five-Factor Hypothesized Model

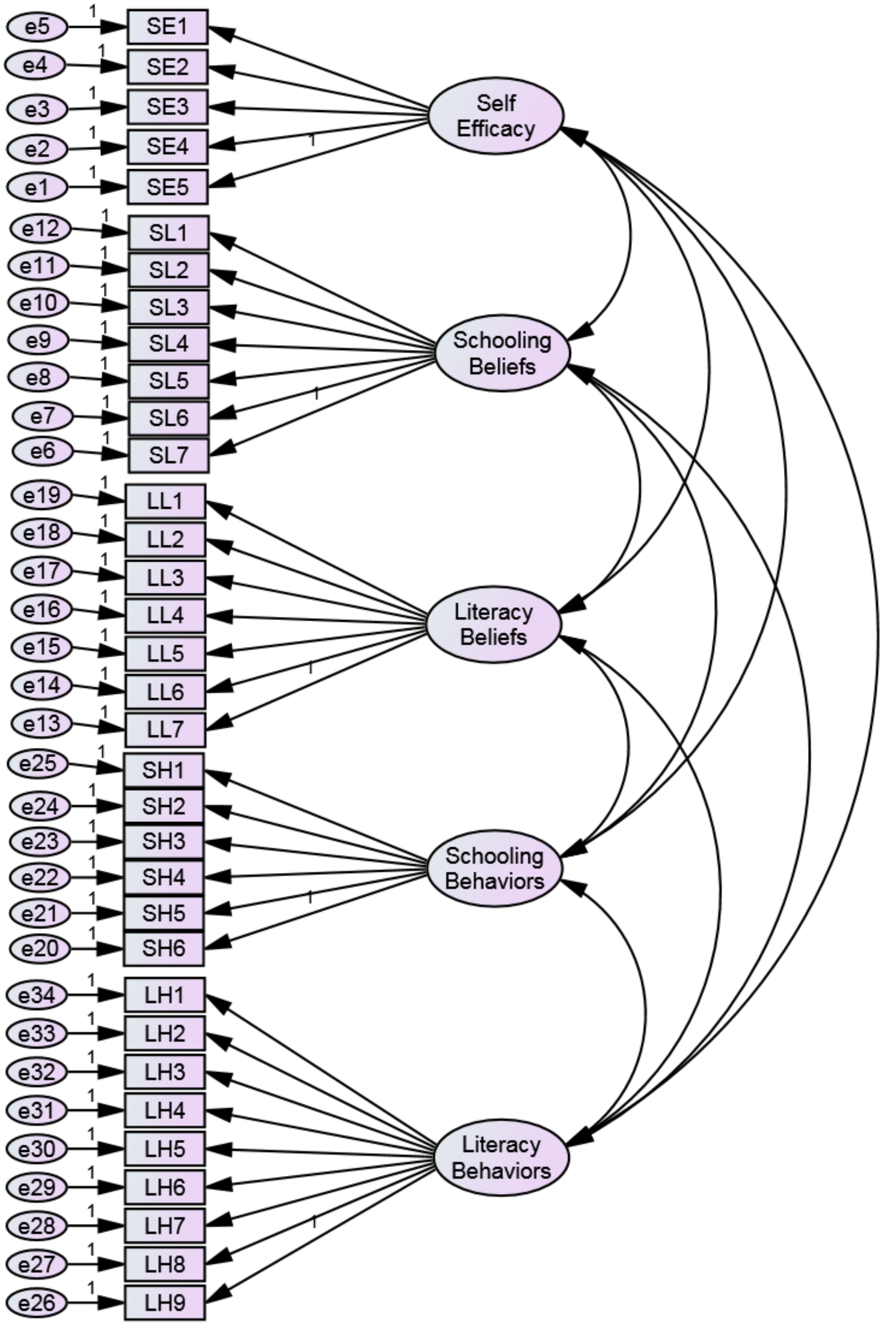

Table 4.9

Survey Items

Construct	Item
Self-Efficacy	
Item 1	I sometimes get nervous when my child asks me to help him or her learn how to read or write.
Item 2	When my child does well in school, it is because of what I do for him or her at home.
Item 3	I am confident in my reading skills (pronouncing words, asking and answering questions, understanding what I read).
Item 4	I am just as important as my child's teacher when it comes to helping my child learn.
Item 5	I can teach my child.
Schooling Beliefs	
Item 1	It is only the teacher's job to help my child learn.
Item 2	What my child does outside of school can affect how well he or she does in school.
Item 3	I expect my child to go to college or technical college one day.
Item 4	I am confident my child will do well in school.

Item 5	It is important to ask my child about his or her day at school.
Item 6	It is important for my child to graduate/get a diploma from a college or technical college one day.
Item 7	It is important to keep up with how my child is doing in school by talking with his or her teacher.

Literacy Beliefs

Item 1	It is important for my child to be read to many times in order to do well in reading.
Item 2	It is important my child wait until I am finished reading to ask questions or give his or her thoughts.
Item 3	My child can practice reading newspapers, recipes, church materials, and/or magazines to help him or her do well in learning to read.
Item 4	It is important my child practice pretend writing and/or drawing when he or she is learning how to write letters and/or stories.
Item 5	My child can do well in reading without learning the meanings of a lot of words.
Item 6	It is important my child see me read and/or write every day.

Item 7	It is important for my child to use flash cards and repetition to learn sounds of letters or new words.
Schooling Behaviors	
Item 1	I smile when I talk to my child about their day at school.
Item 2	I explain to my child how important it is to get an education.
Item 3	I make sure to encourage my child to do his or her best in school.
Item 4	I encourage my child to question and explore new things every day.
Item 5	I help my child with his or her schoolwork.
Item 6	I tell my child I am proud of him or her.
Literacy Behaviors	
Item 1	When I read to my child, I encourage him or her to talk to me about what we are reading.
Item 2	I encourage my child to listen and/or sing songs every day.
Item 3	I tell my child stories about our family and/or friends.
Item 4	I make somebody reads to my child every day.

Item 5	I explain new words and what they mean to my child.
Item 6	I encourage my child to write stories or draw pictures of a story.
Item 7	I have my child play learning/reading games (ex. flash cards, computer games, cell phone learning games or apps).
Item 8	I read the road and store signs with my child every time we go somewhere.
Item 9	I point to words every time I read to my child.

Five-factor model

Prior to the analysis the five-factor hypothesized model (See Figure 4.1 for model and Table 4.9 for items) measuring self-efficacy, schooling beliefs, literacy beliefs, schooling behaviors, and literacy was examined). If determined valid, the five-factor model would provide more insight into EHS and HS parents' beliefs and behaviors than the two-factor model on measuring literacy beliefs and behaviors. Missing data was found in at less than five percent of the missing cases. The missing data was determined by SPSS Missing Values Analysis to be missing completely at random (α = .05), and was replaced (Tabachnick & Fidell, 2013). Unengaged participants were also examined. Surveys with a low standard deviation between answer choices (participations answering the same way for every question) were eliminated from the data set. The sample size was reduced to 263 from 270.

Univariate and multivariate outliers were determined through z-scores and Mahalanobis Distance. These outliers were examined, but were not considered influential outliers. To test this theory, outliers were removed from the data set to see if normality among variables improved. Analysis of the univariate outliers revealed 10 cases that contained at least 6 outliers. When removed 5 of the severely skewed variables improved while 5 became more severe. Removal of the 18 multivariate outliers determined by Mahalanobis' Distance test produced similar results. Since removal of the outliers did not improve normality, it was determined to retain them in the data set preserving the sample size and data collected.

Examination of histograms revealed severely skewed variables. Because multivariate normality is almost never achieved with raw empirical data (Gao, Mokhtarian, & Johnson, 2008), these variables were transformed to < |3| (Weston & Gore, 2006). Twenty-seven variables were transformed; reciprocal transformations were used for the 2 severely positive skewed variables and 25 severely negative variables. After transformation, two variables, schooling belief item five and schooling behavior item six, were still severely skewed (>|3|); therefore, they were removed from the model. These items referred to the importance of asking the child about his or her day at school, and schooling behavior item six referred to how often the parent told his or her child how proud of them they were. Data was also tested for homogeneity of the variance/covariance matrices using Bartlett's test. This assumption was upheld $p < .05$.

A confirmatory factor analysis was conducted on the remaining 32 items for the five-factor model. The model assumed items were influenced by five factors: self-efficacy, schooling beliefs, literacy beliefs, schooling behaviors, and literacy behaviors.

The model fit statistics, comparative fit index (CFI), the root mean square of approximation (RMSEA), and the Tucker-Lewis index (TLI), were used to determine the best fit. Values ranging from .92 to .94 for CFI (Browne & Cudeck, 1993), as well as, .05 to .08 for RMSEA (Browne & Cudeck, 1993) were used to determine good fit. A value greater than .90 for TLI (Tucker & Lewis, 1973) was also used to indicate good fit. Chi-square statistic was not used an indicator of good fit because of its sensitivity to small sample size; however, it was later used to test the difference between the five-factor model and the two-factor nested model.

Confirmatory factor analysis using maximum likelihood estimation revealed an insignificant fit (CFI = .87, TLI = .86, RMSEA = .06) of the 32-item survey. To reduce Type 1 error, the model was only modified by the examination of factor loadings, squared multiple correlations, and standardized residual covariances (Schreiber, Stage, King, Nora, & Barlow, 2006). Therefore, two self-efficacy items, two schooling belief items, two literacy belief items, and one literacy behavior item were removed from the model due factor loadings less than .40) Further modifications to the model were made based on squared multiple correlations. Five items were removed because they did not account for much of the variance in the model. Model fit analysis was again conducted revealing marginal fit. The standardized residual covariances were then examined, and one item was removed due to its high standardized covariance with another item (See Table 4.10 for explanation of removal of items from the model). After these modifications, model fit analysis was conducted and resulted significant improvements revealing good model fit numbers (χ^2_{160}= 296.04, p < .001, CFI = .94, TLI = .93, RMSEA = .057) (see Table 4.11 for good model fit numbers and Table 4.12 for factor loadings of the best fit model).

This best fit model consisted of 20 items: 3 measuring self-efficacy, 4 measuring schooling beliefs, 4 measuring literacy beliefs, 4 measuring schooling behaviors, and 5 measuring literacy behaviors (See Figure 4.2).

Table 4.10

Items Removed from Five-Factor Model after CFA

Construct	Item	Reason for Elimination
Self-Efficacy		
Item 1	I sometimes get nervous when my child asks me to help him or her learn how to read or write.	Factor loading < .40
Item 2	When my child does well in school, it is because of what I do for him or her at home.	Factor loading < .40
Schooling Beliefs		
Item 1	It is only the teacher's job to help my child learn.	Factor loading < .40
Item 2	What my child does outside of school can affect how well he or she does in school.	Factor loading < .40
Item 5	It is important to ask my child about his or her day at school.	Highly skewed (>|3|)

Literacy Beliefs		
Item 1	It is important for my child to be read to many times in order to do well in reading.	Accounted for small amount of variance
Item 2	It is important my child wait until I am finished reading to ask questions or give his or her thoughts.	Factor loading < .40
Item 5	My child can do well in reading without learning the meanings of a lot of words.	Factor loading < .40
Schooling Behaviors		
Item 1	I smile when I talk to my child about their day at school.	Accounted for small amount of variance
Item 6	I tell my child I am proud of him or her.	Highly skewed (>|3|)
Literacy Behaviors		
Item 1	When I read to my child, I encourage him or her to talk to me about what we are reading.	High standardized covariance with another item
Item 4	I make somebody reads to my child every day.	Factor loading < .40

Item 6	I encourage my child to write stories or draw pictures of a story.	Accounted for small amount of variance
Item 9	I point to words every time I read to my child.	Accounted for small amount of variance

Figure 4.2

Five-Factor Best Fit Model

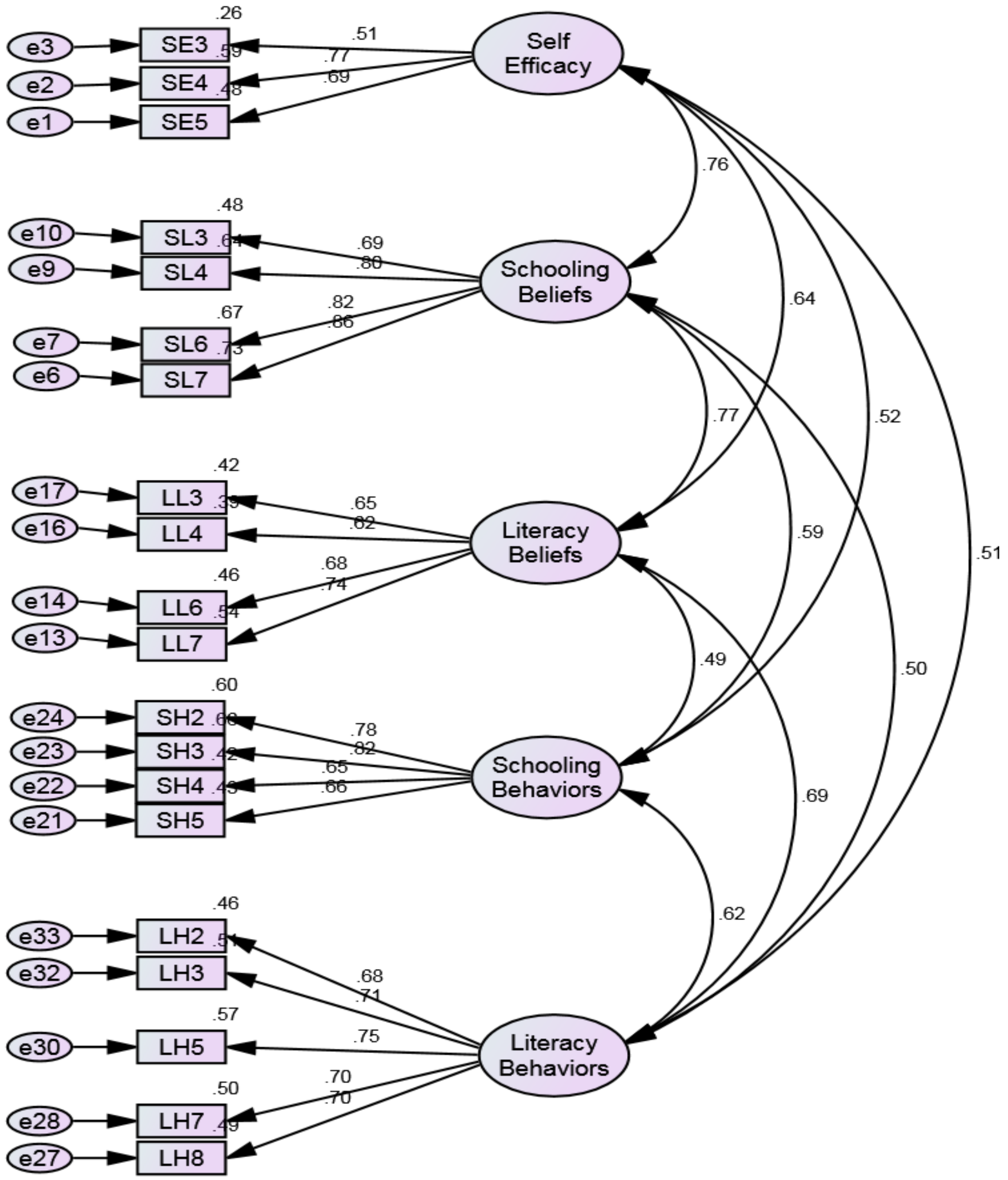

Table 4.11

Model Fit Indexes of Best Fit Five-Factor Model

χ^2	*df*	CFI	TLI	RMSEA

296.04	160*	.94	.93	.057

*Note.** *p*< .001

Table 4.12

Factor Loadings of Best Fit Five-Factor Model

Construct	Item	Standardized Regression Weights
Self-efficacy		
Item 3	I am confident in my reading skills (pronouncing words, asking and answering questions, understanding what I read).	.51
Item 4	I am just as important as my child's teacher when it comes to helping my child learn.	.77
Item 5	I can teach my child.	.69
Schooling Beliefs		
Item 3	I expect my child to go to college or technical college one day.	.69
Item 4	I am confident my child will do well in school.	.80
Item 6	It is important for my child to graduate/get a diploma from a college or technical college one day.	.82
Item 7	It is important to keep up with how my child is doing in school by talking with his or her teacher.	.86
Literacy Beliefs		
Item 3	My child can practice reading newspapers, recipes, church materials, and/or magazines to help him or her do well in learning to	.65

Construct	Item	Standardized Regression Weights
	read.	
Item 4	It is important my child practice pretend writing and/or drawing when he or she is learning how to write letters and/or stories.	.62
Item 6	It is important my child see me read and/or write every day.	.68
Item 7	It is important for my child to use flash cards and repetition to learn sounds of letters or new words.	.74
Schooling Behaviors		
Item 2	I explain to my child how important it is to get an education.	.78
Item 3	I make sure to encourage my child to do his or her best in school.	.82
Item 4	I encourage my child to question and explore new things every day.	.65
Item 5	I help my child with his or her schoolwork.	.66
Literacy Behaviors		
Item 2	I encourage my child to listen and/or sing songs every day.	.68
Item 3	I tell my child stories about our family and/or friends.	.71
Item 5	I explain new words and what they mean to my child.	.75
Item 7	I have my child play learning/reading games (ex. flash cards, computer games, cell phone learning games or apps).	.71
Item 8	I read the road and store signs with my child every time we go somewhere.	.70

Reliability analysis of the established 20-item model was conducted. Reliability of each factor was estimated using Cronbach's α. Cronbach's α greater than 0.70 were the intended results to validate reliability of the factors. Results revealed an internal consistency coefficient for self-efficacy of 0.68, 0.87 for schooling beliefs, 0.77 for literacy beliefs, 0.80 for schooling behaviors, and 0.70 for literacy behaviors. The full 20-item instrument was also examined revealing a Cronbach's α value of 0.87 (See Table 4.13).

Table 4.13

Internal Consistency Coefficients for Best Fit Five-Factor Model

Factor	Cronbach's α
Self-Efficacy	0.68
Schooling Beliefs	0.87
Literacy Beliefs	0.77
Schooling Behaviors	0.80
Literacy Behaviors	0.70
Overall	0.87

Two-factor nested model

The five-factor model was reexamined in terms of the more parsimonious two-factor nested model measuring literacy beliefs and literacy behaviors. This model consisted of 13 items: five hypothesized to influence literacy beliefs and eight hypothesized to influence literacy behaviors. Comparative fit index (CFI), the root mean square of approximation (RMSEA), and the Tucker-Lewis index (TLI), were used to determine the best fit. Values ranging from .92 to .94 for CFI, and .05 to .08 for RMSEA were used to indicate good fit. A value greater than .90 for TLI (Tucker & Lewis, 1973) was also used to indicate good fit. Chi -square statistic was not used an indicator of good fit because of its sensitivity to small sample size. Results of the CFA for the 13 item model revealed good fit numbers (CFI = .96, TLI = .95, RMSEA = .05). However, three items, two within literacy beliefs and one within literacy behaviors demonstrated low factor loadings (< .40) and did not account for much of the variance in model. These variables were removed from the model (See Table 4.14 for explanation of removal of all items from the model). The resulting model (see Figure 4.3) of 10 items, 3 for literacy beliefs and 7 for literacy behaviors, revealed excellent measures of good fit (χ^2_{34}= 45,44, p < .05, CFI = .98, TLI = .98, RMSEA = .04) (see Table 4.15 for good fit statistics and Table 4.16 for factor loadings of remaining items).

Table 4.14

Items Removed from Two-Factor Nested Model after CFA

Construct	Item	Reason for Elimination

Literacy Beliefs Item 2	It is important my child wait until I am finished reading to ask questions or give his or her thoughts.	Factor loading < .40
Item 4	It is important my child practice pretend writing and/or drawing when he or she is learning how to write letters and/or stories.	Highly skewed
Item 5	My child can do well in reading without learning the meanings of a lot of words.	Factor loading < .40
Item 7	It is important for my child to use flash cards and repetition to learn sounds of letters or new words.	Highly skewed
Literacy Behaviors Item 1	When I read to my child, I encourage him or her to talk to me about what we are reading.	Factor loading < .40
Item 4	I make somebody reads to my child every day.	Highly skewed

Figure 4.3

Two-factor nested model

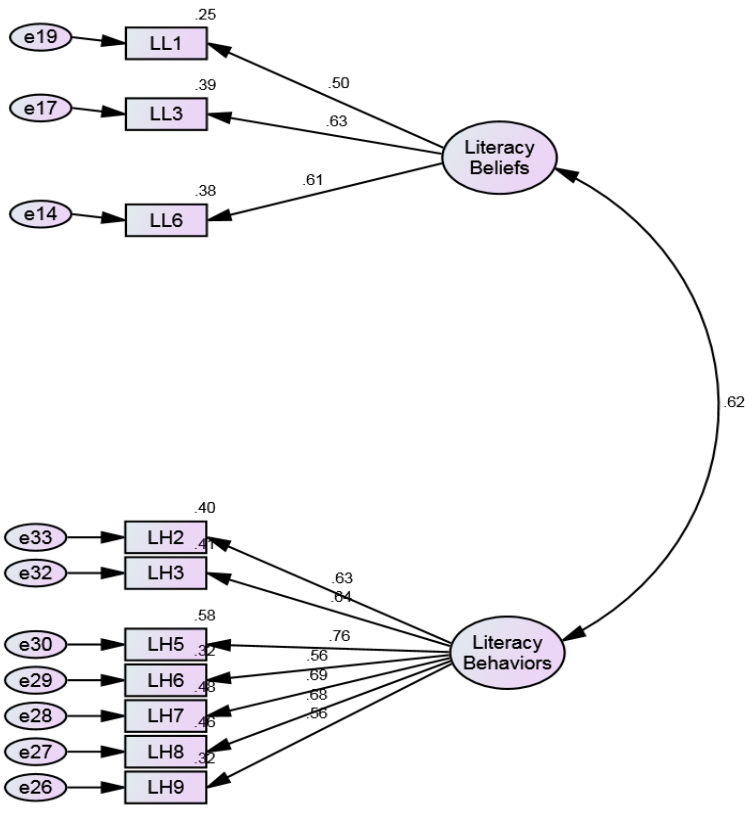

Table 4.15

Model Fit Indexes of Best Fit Two-Factor Nested Model

χ^2	*df*	CFI	TLI	RMSEA
45.44	34*	.98	.96	.04

Note. *$p < .05$

Table 4.16

Factor Loadings for Best Fit Two-Factor Nested Model

Construct	Item	Standardized Regression Weights
Literacy Beliefs		
Item 1	It is important for my child to be read to many times in order to do well in reading.	.51
Item 3	My child can practice reading newspapers, recipes, church materials, and/or magazines to help him or her do well in learning to read.	.63
Item 6	It is important my child see me read and/or write every day.	.61
Literacy Behaviors		
Item 2	I encourage my child to listen and/or sing songs every day.	.64
Item 3	I tell my child stories about our family and/or friends.	.64
Item 5	I explain new words and what they mean to my child.	.76
Item 6	I encourage my child to write stories or draw pictures of a story.	.57
Item 7	I have my child play learning/reading games (ex. flash cards, computer games, cell phone learning games or apps).	.69
Item 8	I read the road and store signs with my child every time we go somewhere.	.68.

Item 9	I point to words every time I read to my child.	.56

Reliability analysis was conducted over the established 10-item survey measuring literacy beliefs and literacy behaviors. Reliability of each factor was estimated using Cronbach's α. Cronbach's α greater than 0.70 were the intended results to validate reliability of the factors (Tabachnick & Fidell, 2013). Literacy beliefs revealed an internal consistency coefficient of 0.60. Literacy behaviors revealed an internal consistency coefficient of 0.64. The full 20-item instrument was also examined revealing a Cronbach's α value of 0.68 (See Table 4.17).

Table 4.17

Internal Consistency Coefficients for Best Fit Two-Factor Nested Model

Factor	Cronbach's α
Literacy Beliefs	0.60
Literacy Behaviors	0.64
Overall	0.68

Five-factor model vs. two-factor nested model

The nested two-factor model was examined with respect to the five-factor model to determine if it was more parsimonious using the χ^2 difference test (Tabachnick & Fidell, 2013). The $\Delta\chi^2$ ($\chi^2_{126} = 250.60$) was determined by taking the difference between the χ^2 test statistic and degrees of freedom of the five factor model (χ^2_{160}= 296.04) and the two-factor nested model (χ^2_{34}= 45.44). Chi-square critical values were examined (Field, 2009), and the $\Delta\chi^2$ (χ^2_{126} = 250.60) and there was statistically significant difference ($p <$ .001) between the two models revealing the five-factor model as the best model.

Summary of pilot survey results

The pilot survey results revealed two valid and fairly reliable survey models. However, the χ^2 difference test revealed the five-factor model was the best model. The two-factor nested model upheld all multivariate assumptions and revealed excellent best-fit statistics, but it was not the original goal of this research. EHS and HS can utilize literacy surveys, interviews, or programs that already exist to assist their parents in this area (Britto, 2001; Hammer, Farkas, Maczuga, 2010; Wasik & Hindman, 2010). For this reason, this research endeavor began to develop a more well-rounded survey measuring other important areas such as schooling and self-efficacy because of the impact these areas also have on young children and their later success in school (Cronan, Walen, & Cruz, 1994; Wentzel, 1998). Parents who prioritize school achievement are more likely to perform behaviors that will help their child succeed academically (Astone & McLanahan, 1991; Spera, 2005; Wentzel, 1998). Likewise, efficacious parents provide stimulating learning environments and implement behaviors that have positive long-term effects (Machilda, Taylor, & Kim, 2002). Therefore, understanding the parents' beliefs and behaviors regarding schooling, self-efficacy and literacy can help EHS and HS programs collaborate with families and improve academic achievement.

In the examination of the five-factor model, the goal was to retain all five factors and as much of the original sample and data set collected. Assumptions were reexamined; outliers were individually inspected and were determined insignificant in affecting the normality of the data set, so they were not removed. Non-normality of the variables was expected considering the data collected; it was anticipated parents would answer many of the items similarly especially since many of the items were written to illustrate specific beliefs and behaviors of the EHS and HS population. Therefore, only severely skewed variables (>|3|) were removed from the data set. With these considerations, the five-factor model remained intact and a confirmatory factor analysis revealed a valid a survey with twenty items: three measuring self-efficacy, four measuring schooling beliefs, four measuring literacy beliefs, four measuring schooling behaviors, and five measuring literacy behaviors. Reliability of the five-factor survey was determined with four of the factors revealing strong reliability (> .70), while one factor, self-efficacy, narrowly missing the desired coefficient (> .70) at .68.

As a result of this pilot study, a five-factor model measuring self-efficacy, schooling beliefs, literacy beliefs, schooling behaviors, and literacy behavior were revealed as valid and fairly reliable. The five-factor model was also determined to be the best model in respect to the more parsimonious two-factor model. This five-factor model survey can provide insight into influential areas in an EHS and HS family environment. The research goal was to accurately illustrate beliefs and behaviors relevant to the EHS and HS population, and the pilot survey results reveal the survey is valid in identifying these beliefs and behaviors.

Chapter 5

This chapter discusses how the results of the four research methods, focus groups, cognitive interviews, expert reviews, and pilot study, were used to develop a valid and reliable survey that measures parental behaviors and beliefs in literacy, schooling, and parental self-efficacy among Early Head Start and Head Start families. Also, discussed in this chapter are the implications of how EHS and HS educators can use this survey in practice. The limitations of the study's findings are also examined, as well as, future research suggestions.

Discussion of Results

Focus groups

Analysis of the data collected in the focus groups was used to increase the content and criterion validity of the items developed for the survey. Data analysis was also used to reduce the number of items developed from the review of literature. The recurring themes revealed in the data were utilized to modify and eliminate items.

Results of the focus groups revealed many items were eliminated or modified because they were not applicable to the population. Good survey questions elicit responses in which participants can provide informed answers (Shank, 2012). Thus, if the beliefs and behaviors found on the survey are not applicable to the population, then the participants cannot provide informed answers. In addition, the intended goal of this research study was to develop a survey containing belief and behavior items illustrative of the EHS and HS population, and including items on the survey irrelevant to the goal of the survey can lessen the strength of the results (Thayer-Hart, Dykema, Elver, Schaeffer, & Stevenson, 2010). For example, because EHS and EH children do not receive much homework, parents could not respond to the item regarding the importance of helping their child with homework. Parents had trouble responding to the item concerning how often they told their EHS or HS child they wanted them to go college after high school because parents stated their children were too young to understand the importance of going to college. The parents' reasons behind not performing these behaviors were genuine considering the ages of student EHS and HS; therefore, items containing these behaviors would not produce an accurate measure and were eliminated from the survey. Another item found not to be applicable to the population despite the literature that was found was the using the closed caption on television to read to children (Compton-Lilly, 2004; 2011). Every participant in the focus groups stated they had never heard of this behavior.

Several items were also eliminated or modified because of conceptual inconsistency. During the focus groups, certain items were defined by parents in many different ways. Parents were never able to concur on the meanings of items regarding the importance of talking in different situations or teaching children how to correctly say words. Accuracy of results can be enhanced when participants immediately understand the item and its purpose (Thayer-Hart et al, 2010). Therefore, items consistently being misinterpreted were modified or eliminated because they could not achieve validity as they were written.

Results of the focus groups also revealed items that did not generate enough variance among the population. With these items, parents consistently answered “5” on the Likert scale. Every participant in the focus groups stated they praise their child, talk with child, and read with their child on a daily basis. Other items such as sounding out words with their child and making their child talk in complete sentences were also consistently answered the same way. It was determined these items’ lack of variance was due to social desirability or ineffective item wording. Hinkin (1998) suggests eliminating or re-wording items in which participants would respond in similar ways because it will provide little variance to the researcher. Hence, these items were eliminated from the survey or modified to provide a more effective measure.

Another recurring theme in the focus groups was the similarity among many items developed in the literature reviews. Because it was necessary to reduce the number items generated in the literature review, many of the items considered too similar by the parents were combined to form one item or eliminated from the survey. Before the focus groups, certain items did not seem too similar; however, after observing the parents interact with the items, it was obvious some items were so similar that the need to eliminate or combine items was necessary. Parents found many of the items that began with “I expect” and “I encourage” to be similar. As well as, items regarding the two behaviors “teach” and “help.” Because longer surveys can result in participants getting bored and fatigued increasing the likelihood of response bias (Schmitt & Stults, 1985), this recurring theme of similarity among the items was used as the basis for reducing the number of survey items for this research.

Results of the focus groups also revealed the parents enjoyed completing the survey and talking about the items on the survey. It was noted in all three focus groups that parents made several comments about how much they liked the survey, and several good discussions occurred because of the items on the survey. Parents enjoyed completing and discussing the survey because it contained beliefs and behaviors they already possessed or performed and that they perceived as important to schooling, literacy, and self-efficacy. The EHS and HS parent population understand the effect certain schooling, literacy, and self-efficacy beliefs and behaviors can have on their child (Bruckman & Blanton, 2003). The parents' ability to acknowledge the importance of these areas on this survey can increase response rates (Martin, 1994) reducing non-response error.

As a result of this research method 31 items were eliminated while 46 items were either combined or modified to increase content and criterion validity. These actions resulted in 30-item survey with five items measuring self-efficacy, four items measuring schooling beliefs, eight items measuring literacy beliefs, four items measuring schooling behaviors, and nine items measuring literacy behaviors. A more thorough review of how the items remaining after the pilot survey add to the literature can be found in the Implications section of this chapter. As Simon (1999) stated focus groups can provide valuable information, and this occurred during these focus groups. Opinions were collected, assumptions were tested, and discussion was encouraged (Simon, 1999). The focus group participants assisted in efficiently refining the 79 items to a 30-item survey to better measure the intended construct and contain appropriate terminology for the EHS and HS population (Nassar-McMillan &Borders, 2002). These 30 items were further examined in the cognitive interviews.

Cognitive interviews

Data collected in the cognitive interviews was, again, used to determine which items needed to be modified or eliminated to increase the validity of the survey. Data analysis was also used to determine any formatting modifications needed to increase the parents' understanding and participation during the pilot survey. The analysis resulted in the elimination of two items and the modification of 16 items. Formatting modifications to the survey documents were also made after the data analysis.

Two items were eliminated from the survey after the cognitive interviews. The first item, "My child should worry about spelling when learning how to write," was eliminated because at least two participants mentioned their EHS or HS child was not old enough to know or worry about spelling. Because this item was causing some issues in the interviews, the focus group data was reexamined to see if other participants made similar comments. Data in the focus groups triangulated with the data in the cognitive interviews. Participants felt this was not an important belief because some of the EHS and HS children barely knew how to form letters. Since parents consider this item inappropriate for their children and could not provided informed answers, it was eliminated from the survey (Shank, 2012). The second item eliminated was "I am proud of how well I help my child at home." All three parents answered "strongly agree" to this question, and when asked if they thought other parents would answer this item honestly in the pilot survey, they all said no. Data from the focus groups was reexamined to see if anyone had answered anything other than "5" or "strongly agree," and it was discovered only a few parents discussed answering the item with a “4.” As mentioned by the parents in the cognitive interviews, this item has an issue of parents answering based on social desirability. Because of its inability to get an accurate measurement and risk of social desirability (Field, 2009), it was eliminated from the survey.

After the cognitive interviews, 16 items were modified to increase their content and criterion validity. One recurring theme among the parents in the interviews was the need to for clarification. Words and phrases such as “talk,” “draw,” and “good reader” generated different denotations among the three parents. Focus group data was reexamined to see how the participants defined these words and phrases; it was evident many of these parents also had different interpretations. The different interpretations are largely due to the fact these terms have such complex meaning in their relationship to literacy. It is difficult to adequately define these terms within one item on a survey. For example, the phrase “good reader” has been defined using multiple characteristics. “Good readers” use reading strategies, learn new words, sound-out words correctly, and spend a lot of time reading text (Johnson, 2005; McLaughlin, 2012). When asked what they thought a “good reader” meant during the focus groups and cognitive interviews, many parents stated these skills and strategies, and one parent even questioned in the cognitive interviews that if a child could say the words correctly, but could not understand what they read could they still be considered a good reader. It was hard for parents to answer this item because they knew there were many characteristics of a “good reader.” With so many defining characteristics, measuring what helps children become “good readers” might not be adequately achieved in one or two items. For the pilot study, the phrase “good reader” was modified to “do well in reading.” Unfortunately, this modification still might not adequately measure what skills are needed to be a "good reader." However, this survey does include other items such as the importance of learning new words and talking about the story as you read that EHS and HS programs could compile to gain insight in what parents think is important in helping their children become proficient readers. Also, it might be of interest to future researchers to discuss with the EHS and HS parents what a "good reader" means and use the information to identify a better way to illustrate "good reader" without causing inconsistency in meaning among the parents.

The parents also questioned the meaning behind the item "talking while reading." Mainly, parents wanted to clarify what kind of "talking" was this item referring to. The parents stated that talk that was not related to the book was not allowed while talk about what you were reading was allowed. This was an important finding, especially in its relationship in how current literature defines talking. Parents should be interacting with the children while reading allowing them to ask questions, discuss the illustrations, and provide comments and feedback (Barnyak, 2011; Crowe, Norris, & Hoffman, 2000). Parents in this research understood the importance of these actions and needed the item to be further clarified to represent the actions. When explained to the parents what "talk" was referring to as suggested by Barnyak (2001) and Crowe, Norris, and Hoffman (2000), parents often stated "Oh yeah, yeah, we do that…I understand now." Therefore, the items were modified to further define "talk" such as including "ask questions or give his or her thoughts" and "I encourage him or her to talk to me about what we are reading."

Items containing the word “draw” also caused issues among the parents in the cognitive interviews, and when reexamined, parents in the focus groups also found this item questionable. Many of the parents wanted to know what kind of “drawing” was acceptable for this item. Parents questioned if the item meant random drawing for fun or drawing for a purpose. This contradiction in meaning is similar to what can be found in the literature. Hall (2009) states there are different types of drawing to consider such as drawing as means of art or drawing as a means of communication. Rose, Jolley, and Burkitt (2006) further explain that children should have the freedom to draw whatever they want; however, many classroom environments make drawing a structured exercise. When reading the items concerning the importance of drawing, parents hesitated, not because they did not understand the meaning of “drawing,” but because they knew the kind of drawing they allowed at home was different than what some schools will allow. Parents have a tendency to allow their children to draw more freely at home while some schools want more control over what the students draw (Rose, Jolley, and Burkitt, 2006). For children, drawing is a form of communication and should be encouraged in the early years of development (Cecil, 2012). Therefore, it was important to keep these items on the survey. To reduce the issues caused by the items containing the word “draw,” these items were modified to better define what was meant. For example, “draw pictures of story” was added to help parents understand what was meant for this survey. Unfortunately, this modification still does not alleviate the debate on what kind of drawing is really important, and this is an area that should be considered for future research.

Parents in the cognitive interviews also had issues with items having a negative connotation. These items contained phrases such as “waste time” and “should not.” To corroborate these issues, focus group transcripts were again analyzed, and it was evident these participants had similar issues. Because of the negative connotation, parents found the items hard to answer and some even skipped the item. The negativity seemed to worry parents about which Likert scale choice they should choose. Colosi (2005) states that parents find negatively worded items hard to answer and increases error in survey results. Parents assume since the item evokes a negative response, then the behavior or beliefs is inappropriate and they should not possess or perform the behavior or belief. However, when parents read the negatively written item, they either strongly agree with the belief or always perform the behavior. This internal conflict between how they think they should answer versus how they really want to answer causes the parent to have issues with the negative items. Because of this conflict, survey developers should avoid items that evoke a strong emotional response (Glascoe, 2005). Therefore, these items were modified in a more positive manner. For example, the item “My child should not waste time reading newspapers, recipes, church materials, and/or magazines when he or she is learning how to read” was modified to “My child can practice reading newspapers, recipes, church materials, and/or magazines and still do well in reading.” Keeping the intended meaning intact, the negative connotation of “waste time” has been removed and the item as been reversed to state a child can practice reading with those texts.

Many formatting suggestions were made by the parents in the cognitive interviews. The suggestions made were legitimate and helpful. Suggestions were made to make the directions for completing the survey more specific. Dillman (2007) states formatting issues can reduce survey response rates; therefore, the directions were modified as suggested by the participants. As evident in the cognitive interviews and in the focus groups, many parents would talk about beliefs and behaviors regarding their children not in EHS or HS because the directions were not clear enough to only answer items regarding their EHS or HS child. Parents would also talk about their beliefs and behaviors within in the school environment; however, the purpose of this research is to identify beliefs and behaviors in the home. Because of these discrepancies, the directions were made clearer explaining to only answer items regarding their EHS or HS child within the home environment.

Another formatting suggestion was made in regards to ethnicity item. One parent suggested adding an “other” option item because, as it was written, she could not answer the item since her children were an ethnicity not included in the options. Since this could happen to other parents as well, this was a legitimate suggestion and helpful in making the participant demographics of the pilot study more accurate. To better correspond with how the federal government collects data (Federal Register, 1997), this option was added to the item along with changing the wording to “check the best category that describes your race.” The original statement asked parents to “choose the best category that best describes your ethnicity,” but this does not match the language used by the federal government (Federal Register, 1997).

The survey cover letter was also given to the parents in the cognitive interviews for review. The cover letter contained the title and simplified directions on completing the pilot survey process: reading and signing the consent form, completing the survey, placing all forms in an envelope, and sealing and signing the envelope. One parent suggested placing a short description of the purpose of the research project and how confidentiality would be maintained. He mentioned many parents would not read or understand the consent form that would be attached to the survey explaining all of that information, and that the parents needed to see it in a more simplified version. This was an informative suggestion and further validated the importance of speaking with the intended population of a research project when developing a survey (Nassar-McMillan & Borders, 2002; Rea & Parker, 2005). Prior to this conversation, this information would not have been placed on the cover letter; however, to better meet the needs of the population the cover letter was modified to include two statements regarding confidentiality and purpose of the research.

As a result of the data analysis of the cognitive interviews, the survey was modified from a 30-item instrument to 28-item instrument with four items measuring self-efficacy, four items measuring schooling beliefs, seven items measuring literacy beliefs, four items measuring schooling behaviors, and nine items measuring literacy behaviors. As stated by Ouimet et al (2004), cognitive interviewing adds a layer of value to survey design. The ability to triangulate and cross-reference data collected in cognitive interviews with data collected in focus groups supports the process of ensuring instrument validity (Quimet et al, 2004). As with these cognitive interviews, the survey's validity was strengthened by analyzing misunderstanding and difficulties to ascertain participants' understood the intended meaning of the items. Sixteen of the remaining 28 items were modified to increase their content and criterion validity. A more thorough review of how the items remaining after the pilot survey add to the literature can be found in the Implications section of this chapter. Several formatting changes were also made to the survey documents to help parents better understand the pilot survey process in this study. The survey documents and the 28 items were further examined in the expert reviews.

Expert reviews

Results of the expert reviews indicated all of the items were a “very good” or “good” match in aiming to measure its intended construct. One item regarding self-efficacy was rated highly among three reviewers and low from one reviewer. This item was still considered a good match considering the average of the four scores still rated the item a good match. These high ratings from the experts were a result of the time devoted to reviewing the literature and observing and interacting with the parents within the population of interest during the focus groups and cognitive interviews (Blalock, 2007; Ouimet et al, 2004).

Reviewers did suggest a few language and formatting modifications to increase item validity and comprehension of the survey documents. Reviewers suggested the removal of the phrase “every day” from some items because this frequency was not natural and became the focus of the item. A reexamination of the data collected in focus groups and cognitive interviews was conducted specifically in the areas parents discussed items containing the phrase “every day.” It was revealed parents often stated they did perform the certain behavior or possess the certain belief described in the item, however, not “every day” as the item suggested. Therefore, “every day” was removed from some of the survey items while remaining in others when “every day” seemed more appropriate to measure. Although the Likert scale measured the frequency “always,” it is important to measure if parents always perform certain behaviors such as reading to their child and encouraging him or her to sing or listen to songs “every day.” Performing these behaviors “every day” can influence later literacy skills and are also typical practices of the low-income African American population (Baker and Schner, 2002; Bracken and Fischel, 2008; Compton-Lilly, 2009, 2012; Dudley-Marling, 2009; Heath, 1983).

Reviewers also suggested the removal of the word “should” in the belief items. One reviewer commented this word choice could possibly generate a negative connotation among parents making them feel as though they were being judged by taking the survey. Hinkin (1998) also stated that items like these are leading questions because they are suggesting the participant “should” have the certain belief illustrated on the survey. Data from the focus groups and cognitive interviews was reviewed, and it was noted in the cognitive interviews that parents hesitated more frequently, took longer to answer items containing the word “should,” and expressed how some of these items seemed negative. Because it is important to ensure parents do not feel as though they are being judged, items containing “should” were modified.

One reviewer also suggested that some constructs needed more items in order to get a better measurement during the pilot survey. These items were self-efficacy, schooling beliefs, and schooling, behaviors. It is important for the hypothesized model to include enough items to reduce the risk of a construct being eliminated during the pilot survey. The original goal was to retain four to six items for the pilot survey (Hinkin, 1998). Focus group and cognitive interview data was reexamined to find items that could be added back to the hypothesized model. Items that did not cause many issues and was prevalent in the literature were added back to the survey. One item was added to help measure self-efficacy, two items were added to help measure schooling beliefs, and two items were added to help measure schooling behaviors. These items were again reviewed by an expert and considered good matches to its intended construct.

The reviewers also made some formatting suggestions regarding the cover letter and survey. One main suggestion and modification was the change in the survey directions. All four reviewers and many of the parents in the focus groups and cognitive interviews stressed the need to better explain how to answer the items using the Likert scale developed for this survey. This issue was evident in all three research methods and could affect the participation level and accuracy of data collected. Because it was not possible to change the actual Likert scale to have a valid confirmatory factor analysis, further explanation on how to use the Likert scales to complete the survey was given in the directions of the survey. Other minor formatting modifications were made: adding a more specific title to the survey documents and reordering the survey items. The inappropriate formatting can result in issues with data collection and participation rates (Dillman, 2007). Therefore, these modifications were made to reduce the possibility of these issues.

As a result of the data analysis of the expert reviews, the survey was modified from a 28-item instrument to a 34-item instrument with 5 items measuring self-efficacy, 7 items measuring schooling beliefs, 7 items measuring literacy beliefs, 6 items measuring schooling behaviors, and 9 items measuring literacy behaviors. Dillman (2007) suggests utilizing expert reviews during the survey development process because their experience with the content and procedures at hand can provide valuable information to the researcher. This was achieved during the expert reviews in this research. The experts' ratings and comments were used to modify thirteen items, and add four of the original items eliminated from the focus groups and cognitive interviews. The experts' reviews were also used to confirm the validity 17 items; thus, no changes were made to these 17 items. A more thorough review of how the remaining items after the pilot survey add to the literature can be found in the Implications section of this chapter. The data collected in the expert reviews was also used to make formatting changes to the directions and the title to assist the parents in understanding the process and purpose of the survey. Thirty-four items were examined furthered in the pilot survey.

Pilot survey

The goal of this research method was to determine the best model fit to measure Early Head Start and Head Start parents' beliefs and behaviors regarding schooling, literacy, and self-efficacy. In order to achieve this goal, confirmatory factor analysis was conducted to assess factorial validity within the 34-item hypothesized model measuring self-efficacy, schooling beliefs, literacy beliefs, schooling behaviors and literacy behaviors. Prior to the analysis, multivariate assumptions were examined. Removal of all outliers and non-normal variables reduced to the sample size to 235 cases and eliminated three constructs of interest, self-efficacy, schooling beliefs, and schooling behaviors. This new two-factor nested model was examined using confirmatory factor analysis, but the five-factor hypothesized model was also reexamined. Outliers and normality issues were identified and examined, but were determined as inconsequential to the overall all data set. Making these decisions maintained the authenticity of the data and the goal of measuring the five areas of interest (Gao, Mokhtarian, & Johnston, 2008). The nature of the research at hand was considered and non-normality was acknowledged as an effect of the collection of raw empirical data from the participants (Gao, Mokhtarian, & Johnston, 2008) The data set and hypothesized model were slightly modified after examining assumptions resulting in a 263 sample size with 32 items of measurement. Both models (five-factor hypothesized model and two-factor nested model) are discussed below.

Five-factor model

In the process of determining the best fit model of the five-factor hypothesized model, 12 items were eliminated. These items revealed low factor loadings, accounted for a small amount of variance, or contained residual issues. The removal of these items resulted in a good fit model of 20 items. Four of the five subscales also revealed acceptable reliability using Cronbach's α > .70.

The items removed due to low variance were examined, and it was determined several of these items could have been affected by social desirability (Field, 2009). For example, parents are not likely to admit they get nervous around their child or that they don't smile at their child. One item was also removed from the model because it was revealed to have a high standardized residual covariance with another item (Schreiber et al, 2006). These items were examined and it was determined they were very similar, so one was removed from the model.

Reliability analysis revealed a questionable internal consistency coefficient for the factor self-efficacy. This is probably due to the low number of items within the self-efficacy construct (Field, 2009). The other two items were eliminated from the model because of low factor loading and not accounting for much of the variance. However, the coefficient was .68 which is very close to the acceptable measure of .70 (Tabachnick &

Fidell, 2013). Fleiss (1986) considers the coefficient .68 to be good or fair measure; however, the true measure of reliability necessitates the consideration of how the data will be utilized.

Two-factor nested model

Although determining the best model fit for the five-factor hypothesized model was the aim of this study and was achieved, it was of interest to examine the hypothesized model more robustly in regards to the multivariate assumptions. Upholding stricter assumption guidelines, reduced the five factor hypothesized model to a two-factor model measuring literacy beliefs and behaviors. The two-factor model consisting of 13 items was analyzed for factorial validity using CFA. Although the 13-item survey revealed good fit estimates, three items had insignificant factor loadings. These items were removed resulting in 10-item survey measuring literacy beliefs and behaviors with excellent measures of good fit.

Normality issues evident in the items eliminated from the five-factor hypothesized model could have been caused by the particular belief or behavior being measured. Parents responded in similar ways to the eliminated items either because of social desirability or because of how the item was worded. Many of the items were included on the survey to represent the population; however, the word choice chosen to represents their beliefs and behaviors resulted in the parents answering the same way and causing normality issues. The two-factor model did produce excellent measures of good fit, but did obtain acceptable reliability measures of .70 or greater (Tabachnick & Fidell, 2013). As mentioned in the five-factor model (Fliess, 1986), the .60 and .64 could be considered fair reliability measures when considering how the data will be used. Despite these good fit statistics, the χ^2 difference test revealed the five-factor model as the best model; therefore, the usefulness of this model is discussed below.

Usefulness of items remaining on the five-factor model

The items remaining on both the five-factor models measure a variety of beliefs and behaviors which can provide insight into the areas of achievement, motivation, and attitude levels. The items remaining in the model have been determined valid and fairly reliable as established in the literature. The remaining self-efficacy items focus on the parent being the most influential teacher (Britto, 2001; Cronan, Walen, & Cruz, 1994; Maduekwe & Adeosun, 2010) asking parents to rate how confident they are in their own reading skills, how important they are to helping their child learn, and how well they can teach their child. Assessing the items can identify the types of techniques parents choose to use within the home, the level of parent involvement in learning activities, and the kind of learning environment parents provide (Astone & McLanahan, 1991; Bruckman & Blanton, 2003; Green, Walker, Hoover-Dempsey, & Sandler, 2007; Raikes & Thompson, 2005; Wentzel, 1998).

The remaining schooling belief items focus on communication, confidence levels, and education after high school. These items measure parents' beliefs regarding the importance of communicating with their child's teacher and their child continuing their education after high school. Assessing these items is important because they provide insight into the kind of attitude the EHS and HS child has toward school, their ability to do well in school, their later academic achievement, and their desire to further their education after high school. Parents who believe it is important to communicate with their child’s teacher typically have children who have positive attitudes toward school and academic achievement (Astone & McLanahan, 1991; Green, Walker, Hoover-Dempsey, & Sandler, 2007; Pomerantz, Moorman, & Litwach, 2007; Prins & Toso, 2008; Rickel & Biasatti, 1982). Likewise, parents who have high expectations for their children such as continuing their education after high school, in return, have children who are more interested in school, succeed academically, and strive to further their education (Baumrind, 1967; Dudley-Marling, 2009; Dutch, 2003; Galper, Wigfield, & Seefeldt, 1997; Lazar, 1981; Rutchick, Smyth, Lopoo, & Dusek, 2009; Steinberg, Lamborn, Dornbusch, & Darling, 1992;). Lastly, this factor also measures how confident parents are in their child’s ability to do well in school. This item is important because parents who are confident in their child’s abilities typically have children who are also confident in their ability to achieve academically (Pomerantz, Moorman, & Litwack, 2007).

The remaining literacy beliefs items examine a variety of beliefs many of which were stated in the literature applicable to this particular population of study (Compton-Lilly, 2004, 2011; Elish-Piper, 1997; Heath, 1983). These items include learning how to read by using a variety of reading materials, and focusing on repetition such as using flash cards. The remaining items also focus on the parent being a literacy model for their EHS and HS child and encouraging their child to practice their literacy skills. These items are important to assess because they provide insight into how parents’ beliefs relate to other research-based best literacy practices, and since, parental beliefs likely guide behaviors, these items provide further insight into the home literacy environment (Hindman & Wasik, 2008). Three of the remaining four items in the five-factor model directly connect to Hindman and Wasik’s (2008) research in how beliefs guide behaviors.

These items measure how strongly parents agree with how important it is to pretend write and/or draw when their child is learning how to write letters and/or stories, to model reading and/or writing every day, and utilizing drill and practice techniques such as flash cards for learning. Hindman and Wasik (2008) found that individuals who had these beliefs also enacted these practices. Also, parents who understood the importance of modeling appropriate literacy behaviors had children with high motivation and competence levels (Baker & Schner, 2002; Barody & Dobbs-Oates, 2009; Maduekwe & Adoesun, 2010; Senechal & LeFevre, 2002). Parents who believed it was important for children to practice reading using all forms of genres as described in the one of the items remaining in both survey models had children with strong receptive language and early literacy skills (Baumrind, 1967; Bracken & Fischel, 2008; Dutch, 2003; Elish-Piper, 1997; Heath, 1983; Prins & Toso, 2008; Steinberg, Lamborn, Dornbusch, & Darling, 1992; McCarthey, 1997;). This information can be vital in understanding why the EHS and HS make certain decisions within the home and what behaviors their parents might possess.

The schooling behavior items remaining on the survey measure how often parents communicate and encourage their child. More specifically these items measure how often the parents explain the importance of getting an education and encourage their children to do their best in school. Assessment of these items can give insight into the kinds of goals EHS and HS children will set academically and their persistence in school, intellectual accomplishments, and attendance of college (Baumrind, 1967; Dutch, 2003; Pomerantz, Moorman, & Litwach, 2007; Roberts, Block, & Block, 1984; Spera, 2005; Steinberg, Lamborn, Dornbusch, & Darling, 1992). The construct is also illustrated in the model by measuring how often parents encourage their children to question and explore new learning and how often parents help their child with schoolwork. Assessment of these items are helpful because they give insight to child's level of school readiness, future achievement levels, type of attitude regarding school (Astone & McLanahan, 1991; Baumrind, 1967; Compton-Lilly, 2009 & 2011; Dutch, 2003; Green, Walker, Hoover-Dempsey, & Sandler, 2007; Parker, Boak, Griffin, Ripple, & Peay, 1999; Prins & Toso, 2008; Spera, 2005; Hindman & Wasik, 2008; Steinberg, Lamborn, Dornbusch, & Darling, 1992).

Similar to the literacy belief items, the remaining literacy behavior items are applicable to the population of study. These behaviors include singing songs, telling stories, playing learning games, and reading environmental print such as road and store signs (Baumrind, 1967; Dutch, 2003; Maduekwe & Adoesun, 2010; Steinberg, Lamborn, Dornbusch, & Darling, 1992). The behaviors are important to assess because they can be linked to early literacy skills (Bracken and Fischel, 2008; Compton-Lilly, 2004, 2011; Elish-Piper, 1997; Maduekwe & Adoesun, 2010). Another item within this construct assesses how often parents explain new words and what they mean to their child. This is important because it can provide insight into level of literacy skills and achievement later in their education (Maduekwe & Adoesun, 2010; Senechal & LeFevre, 2002).

The belief and behavior items remaining on the survey model are validated in the literature and can help EHS and HS staff understanding the connections between a parent's beliefs and behaviors and their child's attitude, motivation, and achievement level in school. The valid five-factor model can provide EHS and HS with information in the areas of self-efficacy, schooling beliefs, and schooling behaviors. As opposed to the two-factor nested model, the five-factor model contains ten additional parental beliefs and behaviors that have been considered independent and positive predictors of a child's educational success (Cronan, Walen, & Cruz, 1994; Wentzel, 1998). EHS and HS staff can find a copy of the five-factor model survey and cover letter in the Appendix I and Appendix J for immediate use within their programs.

Limitations and Suggestions for Further Research

The sampling method used for this study limits the explanation of results to the population. Because a cluster sample was utilized to only sample the centers in the Southwest Georgia Region, the results are only generalizable to this area. However, now that the survey has been found to be valid and fairly reliable other researchers can utilize it to explore other EHS and HS regions (Field, 2009).

Another possible limitation in regards to sampling is the lack of representation of EHS and HS Hispanic families in the literature review and the pilot survey. After the centers had been randomly sampled, it was revealed that two of the centers had a relatively high, as compared with the state's statistics, Hispanic demographic. Many of the items developed for the survey are grounded in the literature illustrating the beliefs and behaviors of low-income African American families. Therefore, this population was not fairly represented in the items on the survey. Future research in examining the EHS and HS Hispanic population is needed. Findings in the literature can be compared with the findings in this study to either confirm EHS and HS African American and Hispanic families have similar beliefs and behaviors or modify the survey to have beliefs and behaviors applicable to the EHS and HS Hispanic families as well. In this study, only 2% of the Hispanic population within the Southwest EHS and HS region returned the survey.

The lack of participation from these families could possibly be that no Spanish interpreters or copies of surveys in Spanish were available. Replication studies should acknowledge the possibility of non-English speaking participants and provide interpreters and copies of the survey in a different language to make the survey accessible everyone in the population.

The lack of items within the self-efficacy construct on the best fit five-factor model for is also a limitation of this study. Only three items were included on the best fit five-factor model after the analysis. The goal of the study was to retain at least four items (Hinkin, 1998). The wording of the two items eliminated from the model could have caused parents to respond similarly resulting in little variance and their elimination from the five-factor model. Future research in examining the self-efficacy of EHS and HS parents is needed to gain a better understanding of how EHS and HS parents feel about their ability as a parent and a teacher to their child. Re-wording the self-efficacy items eliminated in the pilot survey and reexamining their validity and reliability could also be a direction for future research.

The self-report data collected in this study is also a limitation (Field, 2009). Participants were likely influenced by other factors such as social desirability when responding to survey items. This data could have disrupted the internal validity of the survey (Field, 2009). This limitation was addressed in the anonymity and confidentiality procedures in the study. Additional formatting changes were made to the cover letter after the cognitive interviews to further articulate these procedures and reduce the risk of self-report data. Future studies trying to reduce self-report data with survey research should acknowledge what was revealed in this study regarding how participants deal with survey documents. It was noted most parents simply turn the signature page and sign without reading the information regarding anonymity and confidentiality. Therefore, the cover letter was modified to include a concise, simplistic statement regarding anonymity and confidentiality.

Using the focus groups to help modify the survey rather than using the focus groups to help develop items also limited the results of this study. The focus groups for this study increased the content and criterion validity of the items as intended. However, this limited the input parents could have given because they were only focused on the items created by the researcher. A thorough literature review regarding beliefs and behaviors of low-income African American and EHS and HS families was completed; however, it was evident in the focus groups that certain items developed did not accurately describe the population as stated. Several items were eliminated because they were not applicable to the EHS and HS child due to age or ability level. Further research examining this particular population is needed to better understand the beliefs and behaviors of EHS and HS child age birth to four. Beliefs and behaviors more applicable to this population, but not covered on this survey could be added and tested again for content, criterion, and factorial validity.

Another possible limitation of the study's results is not removing the outliers and using skewed variables in the five-factor hypothesized model. It is the researcher's discretion on how to deal with assumptions not upheld (Gao, Mokhtarian, & Johnston, 2008). However, this can lead to issues with results when assumptions are not supported (Tabachnick & Fidell, 2013). The outliers and normality issues prevalent in the data set of this study can influence, alter, and weaken results. The reader should be mindful of this limitation when assessing the validity and reliability of the instrument. Replicating this study and reexamining assumptions is suggested. Obtaining a larger sample in replication studies is suggested to increase the chances of better illustrating the population of study and increasing normality.

Implications

Since the survey was found to be valid and fairly reliable in two different formats, one of the major implications of this study is for EHS and HS facilities to implement the survey to get a better understanding of their parents' beliefs and behaviors regarding self-efficacy, schooling, and literacy. Many educators make erroneous assumptions regarding low-income African American's beliefs and behaviors (Bruckman & Blanton, 2003; Compton-Lilly, 2009; Parker, Boak, Griffin, Ripple, and Peay, 1999). Compton-Lilly (2009) determined educators assume these families do not participate in literacy activities individually or with their children, do not have the desire or knowledge to practice reading and writing skills with their child, or do not have the appropriate resources in the home to support their child's learning. The use of this survey would be great tool to correct the assumptions and provide insight into the home life and parenting practices of EHS and HS families. Analyzing the results of the survey can help interventionists work with the EHS and HS parents while the children are still young which can have a positive effect on achievement (Heckman 1995).

Implementation of the survey

Identifying the parents' beliefs and behaviors acknowledged on the survey can enhance curriculum and develop effective parents programs (Ladson-Billings, 1995).

Wasik and Hindman (2012) used the Family Literacy Survey to help educators build upon and strengthen home environments. Student and parents need authentic learning experiences such as culturally responsive instruction (Lazar, 1981), and the results EHS and HS educators obtain from the survey can assist in implementing culturally responsive classroom instruction and family programs. The EHS and HS specialists who participated in the cognitive interviews stated this survey would help them better understand their parents' beliefs and behaviors regarding schooling, literacy, and self-efficacy, and they could use the knowledge collected from the results to target areas of needs and strengths among the EHS and HS community and implement culturally responsive instruction.

Culturally responsive instruction integrates the beliefs and behaviors applicable to the population being taught and when implemented effectively, culturally responsive instruction results in strong relationships, meaningful communication, and high achievement (Ladson-Billings, 1995; Lazar, 1981). Effective implementation includes identifying culturally responsive beliefs and behaviors and utilizing them as the foundation of instruction. By using this survey EHS and HS educators, can begin to understand and support the behaviors and beliefs their families perform and possess (Ladson-Billings, 1995). For example, items assessed on the survey include listening and singing songs, sharing family stories, using environmental print, and emphasizing the need for repetition in learning new skills. All of these items have been found to be typical practices of low-income African American parents, and can be used to integrate culturally responsive instruction and family literacy programs.

Assessment of the beliefs and behaviors on this survey can also guide educators in how to interact with parents (Britto, 2001; Machilda, Taylor, & Kim, 2002). The beliefs parents have regarding schooling, literacy, and self-efficacy shape the behaviors they will have in these areas (Klassen-Endrizzi, 2000); therefore, EHS and HS staff can anticipate the beliefs and behaviors of their parents by examining the survey results. Awareness of their families' customs, language, and structure can increase success rates in the classroom and among of family programs (DeBrun-Parecki, 2009). EHS and HS staff can also identify parents who need additional support within the home, and parents who possess and perform appropriate beliefs and behaviors in the home. EHS and HS staff can utilize the parents identified in the results as having appropriate beliefs and behaviors as resources for parents who need additional support. This was observed during the focus groups of this research. In the focus groups, parents who were utilizing the appropriate beliefs and behaviors identified on the survey where able to explain the meaning and importance of these beliefs and behaviors to parents who did not understand. Parents along with the EHS and HS staff can work together to improve understanding and grasp the importance of possessing and performing certain beliefs and behaviors within the home environment. Understanding how parents think and the actions they perform within the home are essential when EHS and HS desire successful interactions with their parents (DeBrun-Parecki, 2009; Elish-Piper, 1997; Ordoñez-Jasis & Ortiz, 2006). Implementing this survey and examining the results can assist EHS and HS programs with successful interactions among their parents.

Another implication of the survey is to utilize the items for topics of discussion among the EHS and HS parent population. Many low-income African American parents are fearful of the school environment and find it difficult to communicate with the school staff (Compton-Lilly, 2004; Dudley-marling, 2004). Many parents in the focus groups and cognitive interviews received a boost of confidence when they discussed the items on the survey because they could relate to and understand the beliefs and behaviors described in the items. Parents also became more confident because they were aware of their vital role in this research study. Parents can be important resources and provide valuable information (Dudley-Marling, 2009). Acknowledging and utilizing parents' opinions and experiences can alleviate communication issues, increase parent participation at school, and increase cognitive stimulation and parent-child interactions within the home (Duch, 2003). While discussing the items on the survey, parents acknowledged their own beliefs and behaviors which, in return, enhanced their understanding of some of the items on the survey (Dutch, 2003; Lynch, 2009). Taking the time to talk to parents and valuing their opinion can result in positive interactions and strong relationships (Compton-Lilly, 2000; Dudley-Marling, 2009). Using this survey as a foundation for discussion among parents can assist EHS and HS staff with developing meaningful interactions and relationships.

Summary

In summary, developing a valid and reliable survey measuring parents' beliefs and behaviors regarding schooling, literacy, and self-efficacy was achieved. Using this survey in context can now assist EHS and HS programs in identifying the beliefs and behaviors of their EHS and HS parents. When educators acknowledge and value beliefs and behaviors occurring in diverse communities an increase in children's motivation to succeed in school and appreciation for learning in the home environment occurs

(Whitehouse & Colvin, 2001). Also, when educators understand parents' beliefs and behaviors barriers are eliminated and communication is stronger (Galper, Wigfield, & Seefeldt, 1997). Furthermore, EHS and HS staff can use the information provided in the surveys to build, enhance, and connect parents' beliefs and behaviors in the classroom and in family programs. Early intervention can have positive effects on children's later educational success (Heckman, 1995); therefore, Early Head Start and Head Start is the appropriate place to implement and utilize this survey.

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Appendix A

Table A

Rationale and References for Survey Questions Regarding Schooling

Question on Survey	Reason	References
I tell my child how proud I am when he or she does well at school.	Parents who prioritize school achievement are more likely to enact behaviors that lead to their child’s success academically.	Pomerantz, Moorman, & Litwach, 2007; Rickel & Biasatti, 1982; Spera, 2005;
I talk with my child about their day at school.	This behavior is linked to a child’s positive attitude toward school and high academic achievement.	Astone & McLanahan, 1991; Pomerantz, Moorman, & Litwach, 2007; Prins & Toso, 2008
I smile and pay attention when I am talking to my child about their day at school.	Parents who participate in this behavior also are more likely to stimulate their children cognitively and provide valuable parent-child interactions.	Baumrind, 1967; Dutch, 2003; Pomerantz, Moorman, & Litwach, 2007; Spera, 2005; Steinberg, Lamborn, Dornbusch, & Darling, 1992

I tell my child that he or she can do well in school.	This parental behavior influences their children's setting of academic goals, persistence in school, intellectual accomplishments, and attendance of college.	Baumrind, 1967; Dutch, 2003; Pomerantz, Moorman, & Litwach, 2007; Spera, 2005; Steinberg, Lamborn, Dornbusch, & Darling, 1992
I tell my child that school is important.	This behavior is linked to a child's positive attitude toward school and high academic achievement. This behavior is also typical of low-income African American parents	Compton-Lilly; Dudley-Marling, 2009; Galper, Wigfield, and Seefeldt, 1997; Spera, 2005
I keep up with how my child is doing in school.	This behavior is linked to a child's positive attitude toward school and high academic achievement. This behavior is also typical of low-income African American parents.	Astone & McLanahan, 1991; Green, Walker, Hoover-Dempsey, & Sandler, 2007; Pomerantz, Moorman, & Litwach, 2007; Prins & Toso, 2008; Rickel & Biasatti, 1982
I encourage my child to do his or her best.	This parental behavior influences their children's setting of academic goals, persistence in school, intellectual accomplishments, and attendance of college.	Baumrind, 1967; Dutch, 2003; Pomerantz, Moorman, & Litwach, 2007; Spera, 2005; Roberts, Block, & Block, 1984; Steinberg, Lamborn, Dornbusch, & Darling, 1992

I help my child with his or her homework.	This behavior is linked to a child's positive attitude toward school and high academic achievement. This behavior is also typical of low-income African American parents.	Astone & McLanahan, 1991; Compton-Lilly, 2009 & 2011; Green, Walker, Hoover-Dempsey, & Sandler, 2007; Prins & Toso, 2008
I make sure my child does not fool around when reading at home.	This behavior is linked to a child's positive attitude toward school and high academic achievement. This behavior is also typical of low-income African American parents.	Astone & McLanahan, 1991; Compton-Lilly, 2000; Dudley-Marling, 2009
What I do at home can affect how my child performs at school.	This behavior is linked to a child's positive attitude toward school and high academic achievement. This behavior is also typical of low-income African American parents.	Astone & McLanahan, 1991; Green, Walker, Hoover-Dempsey, & Sandler, 2007; Rykonen, Aunola, & Nurmi, 2005; Wentzel, 1998
I encourage my child to be interested in, explore, and question new things.	This behavior increases school readiness, develops positive attitudes, and encourages independence among children.	Baumrind, 1967; Dutch, 2003; Parker, Boak, Griffin, Ripple, & Peay, 1999; Spera, 2005; Hindman & Wasik, 2008; Steinberg, Lamborn, Dornbusch, & Darling, 1992

I tell my child I want him or her to get more education after high school.	This parental behavior influences their children's setting of academic goals, persistence in school, intellectual accomplishments, and attendance of college.	Astone & McLanahan, 1991; Baumrind, 1967; Dudley-Marling, 2009; Dutch, 2003; Galper, Wigfield, and Seefeldt, 1997; Lazar, 1981; Rutchick, Smyth, Lopoo, & Dusek, 2009; Spera, 2005; Steinberg, Lamborn, Dornbusch, & Darling, 1992
I tell my child I want him or her to complete an educational program after high school.	This parental behavior influences their children's setting of academic goals, persistence in school, intellectual accomplishments, and attendance of college.	Astone & McLanahan, 1991; Baumrind, 1967; Dudley-Marling, 2009; Dutch, 2003; Galper, Wigfield, and Seefeldt, 1997; Lazar, 1981; Rutchick, Smyth, Lopoo, & Dusek, 2009; Spera, 2005; Steinberg, Lamborn, Dornbusch, & Darling, 1992
I expect my child to get more education after high school.	Parents who have high expectations for their children, in return, have children who are more interested in school, succeed academically, and strive to further their education.	Astone & McLanahan, 1991; Baumrind, 1967; Dudley-Marling, 2009; Dutch, 2003; Galper, Wigfield, and Seefeldt, 1997; Lazar, 1981; Rutchick, Smyth, Lopoo, & Dusek, 2009; Spera, 2005; Steinberg, Lamborn, Dornbusch, & Darling, 1992

I expect my child to complete an educational program after high school.	Parents who have high expectations for their children, in return, have children who are more interested in school, succeed academically, and strive to further their education.	Astone & McLanahan, 1991; Baumrind, 1967; Dudley-Marling, 2009; Dutch, 2003; Galper, Wigfield, and Seefeldt, 1997; Lazar, 1981; Rutchick, Smyth, Lopoo, & Dusek, 2009; Spera, 2005; Steinberg, Lamborn, Dornbusch, & Darling, 1992
Education level of the parent	The education completion level can influence the parents and child's goals for attending school after high school.	Britto, 1990
Parent answering the survey	The mother's educational completion level can affect how much education the child will complete.	Britto, 1990
I am confident in my child's abilities at school.	This parental belief is related to how well their children believe they will achieve. This belief is also linked to high academic achievement.	Galper, Wigfield, and Seefeldt, 1997; Pomerantz, Moorman, & Litwack, 2007

Appendix B

Table B

Rationale and References for Survey Questions Regarding Literacy

Question on Survey	Reason	References
My child needs to be taught the names of each letter in order to read.	Provide insight into how parents' beliefs relate to other research-based best practices. Since parental beliefs are likely to guide behaviors, this question provides further insight into the home literacy environment.	Hindman & Wasik, 2008
My child can learn to read without knowing letter names	Provide insight into how parents' beliefs relate to other research-based best practices. Since parental beliefs are likely to guide behaviors, this question provides further insight into the home literacy environment.	Hindman & Wasik, 2008

My child should hear many stories in order to become a good reader.	Provide insight into how parents’ beliefs relate to other research-based best practices. Since parental beliefs are likely to guide behaviors, this question provides further insight into the home literacy environment.	Heath, 1983; Hindman & Wasik, 2008
My child can be a good reader without hearing many stories.	This is a typical belief among low-income African American parents.	Heath, 1983; Hindman & Wasik, 2008
My child should not write until he or she knows how to form each letter.	Provide insight into how parents’ beliefs relate to other research-based best practices. Since parental beliefs are likely to guide behaviors, this question provides further insight into the home literacy environment.	Hindman & Wasik, 2008
My child can write without being able to form letters correctly	Provide insight into how parents’ beliefs relate to other research-based best practices. Since parental beliefs are likely to guide behaviors, this question provides further insight into the home literacy environment.	Hindman & Wasik, 2008

I encourage my child to listen to songs.	This is a typical behavior among low-income African American parents.	Baumrind, 1967; Dutch, 2003; Maduekwe & Adoesun, 2010; Steinberg, Lamborn, Dornbusch, & Darling, 1992
I talk to my child during meal times.	For children, this parental behavior can facilitate literacy development, prepare children to read independently, and increase achievement.	Baumrind, 1967; Bauman & Wasserman, 2010; Burger & Landerholm, 1991; Dutch, 2003; Glascoe & Leew, 2010; Pomerantz, Moorman, & Litwach, 2007; Prins & Toso, 2008; Steinberg, Lamborn, Dornbusch, & Darling, 1992
My child should ask questions or talk about stories when I read a book to him or her.	For children, this parental behavior can facilitate literacy development, prepare children to read independently, and increase achievement. This parental belief is positively related to achievement in receptive language, development of early literacy skills, and later school achievement.	Bauman & Wasserman, 2010; Burger & Landerholm, 1991; Hindman & Wasik, 2008; Pomerantz, Moorman, & Litwach, 2007; Prins & Toso, 2008; Rickel & Biasatti, 1982; Senechal & LeFevre, 2002

My child should not talk while I am reading a book to him or her.	For children, this parental behavior can facilitate literacy development, prepare children to read independently, and increase achievement.	Bauman & Wasserman, 2010; Burger & Landerholm, 1991; Hindman & Wasik, 2008; Pomerantz, Moorman, & Litwach, 2007; Prins & Toso, 2008; Rickel & Biasatti, 1982; Senechal & LeFevre, 2002
I talk with my child about the story while reading to him or her.	For children, this parental behavior can facilitate literacy development, prepare children to read independently, and increase achievement. This parental belief is positively related to achievement in receptive language, development of early literacy skills, and later school achievement.	Baumrind, 1967; Bauman & Wasserman, 2010; Burger & Landerholm, 1991; Dutch, 2003; Glascoe & Leew, 2010; Pomerantz, Moorman, & Litwach, 2007; Prins & Toso, 2008; Steinberg, Lamborn, Dornbusch, & Darling, 1992
I sing songs with my child.	Typical parental behavior among low-income African American families.	Elish-Piper, 1997; Heath, 1983
My child should play with words, such as making up songs.	Provide insight into how parents' beliefs relate to other research-based best practices. Since parental beliefs are likely to guide behaviors, this question provides further insight into the home literacy environment.	Hindman & Wasik, 2008

I tell my child family stories.	Typical parental behavior among low-income African American families.	Elish-Piper, 1997; Heath, 1983
I expect my child to tell family stories to others.	Typical parental belief among low-income African American families.	Elish-Piper, 1997; Heath, 1983
I encourage my child to tell stories for fun.	This parental behavior influences their children's setting of academic goals, persistence in school, intellectual accomplishments, and attendance of college. This is a typical behavior among low-income African American parents.	Baumrind, 1967; Dutch, 2003; Elish-Piper, 1997; Spera, 2005; Steinberg, Lamborn, Dornbusch, & Darling, 1992;
My child should look at books to help him or her learn to read.	This parental belief is positively related to achievement in receptive language.	Hindman & Wasik, 2008; Senechal & LeFevre, 2002
My child can learn how to read without looking at books.	Provide insight into how parents' beliefs relate to other research-based best practices. Since parental beliefs are likely to guide behaviors, this question provides further insight into the home literacy environment.	Hindman & Wasik, 2008

I have a variety of reading materials in my home i.e. books, newspapers, recipes, church materials.	This parental belief is positively related to achievement in receptive language. This parental behavior is strong predictor of early literacy skills. This is also typical reading materials low-income African American parents utilize in the home.	Baumrind, 1967; Bracken & Fischel, 2008; Dutch, 2003; Elish-Piper, 1997; Heath, 1983; Lynch, 2012; Maduekwe & Adoesun, 2010; McCarthey, 1997; Prins & Toso, 2008; Steinberg, Lamborn, Dornbusch, & Darling, 1992; Senechal & LeFevre, 2002
My child sees me read books, newspapers, mail, recipes, church materials, etc.	This parental behavior has a positive effect on their children's reading motivation. Typical parental behavior among low-income African American families.	Baker & Schner, 2002; Baumrind, 1967; Coleman, 1961; Compton-Lilly, 2004, 2011; Dutch, 2003; Heath, 1983; Steinberg, Lamborn, Dornbusch, & Darling, 1992
I expect my child and me to read every day.	This parental behavior increases the children's motivation to learn and competence level. Typical parental behavior among low-income African American families.	Baker & Schner, 2002; Barody & Dobbs-Oates, 2009; Compton-Lilly, 2009, 2012; Dudley-Marling, 2009; Maduekwe & Adoesun, 2010; Senechal & LeFevre, 2002

My child should not waste time pretend writing or drawing when he or she can be learning to write.	Provide insight into how parents' beliefs relate to other research-based best practices. Since parental beliefs are likely to guide behaviors, this question provides further insight into the home literacy environment.	Hindman & Wasik, 2008
My child should pretend write and draw when he or she is learning how to write	Provide insight into how parents' beliefs relate to other research-based best practices. Since parental beliefs are likely to guide behaviors, this question provides further insight into the home literacy environment.	Hindman & Wasik, 2008
My child should learn to read before learning to write.	Provide insight into how parents' beliefs relate to other research-based best practices. Since parental beliefs are likely to guide behaviors, this question provides further insight into the home literacy environment.	Hindman & Wasik, 2008

My child should learn to write before learning to read.	Provide insight into how parents' beliefs relate to other research-based best practices. Since parental beliefs are likely to guide behaviors, this question provides further insight into the home literacy environment.	Hindman & Wasik, 2008
My child needs to learn the meanings of a lot of words to become a good reader.	Provide insight into how parents' beliefs relate to other research-based best practices. Since parental beliefs are likely to guide behaviors, this question provides further insight into the home literacy environment.	Hindman & Wasik, 2008
My child can become a good reader without learning the meanings of a lot of words.	Provide insight into how parents' beliefs relate to other research-based best practices. Since parental beliefs are likely to guide behaviors, this question provides further insight into the home literacy environment.	Hindman & Wasik, 2008
I explain difficult words to my child.	This behavior is positively related to an increase in the development of early literacy skills and later school achievement.	Maduekwe & Adoesun, 2010; Senechal & LeFevre, 2002

I teach my child new words and what they mean.	This behavior is positively related to an increase in the development of early literacy skills and later school achievement.	Maduekwe & Adoesun, 2010; Senechal & LeFevre, 2002
My child should be taught to speak in complete sentences.	Provide insight into how parents' beliefs relate to other research-based best practices. Since parental beliefs are likely to guide behaviors, this question provides further insight into the home literacy environment.	Hindman & Wasik, 2008
My child should learn how to speak in different situations.	Typical parental behavior among low-income African American families.	Compton-Lilly, 2012
I teach my children how to speak in different situations.	This behavior is positively related to an increase in the development of early literacy skills and later school achievement. This is typical parental behavior among low-income African American parents.	Compton-Lilly, 2012; Senechal & LeFevre, 2002

I help my child sound out words.	This behavior is positively related to an increase in the development of early literacy skills and later school achievement. Typical parental behavior among low-income African American families.	Compton-Lilly, 2004, 2011, 2012; Senechal & LeFevre, 2002
I teach my child how to sound out words.	This behavior is positively related to an increase in the development of early literacy skills and later school achievement. Typical parental behavior among low-income African American families.	Compton-Lilly, 2004, 2011, 2012; Senechal and LeFevre, 2002
I make my child sound out words.	Typical parental behavior among low-income African American families.	Compton-Lilly, 2004, 2011, 2012
I teach my child how to correctly say words.	This behavior is positively related to an increase in the development of early literacy skills and later school achievement. Typical parental behavior among low-income African American families.	Maduekwe & Adoesun, 2010; Senechal & LeFevre, 2002
I allow my child to choose what he or she wants to read together.	Typical parental behavior among low-income African American families.	Compton-Lilly, 2004; Pomerantz, Moorman, & Litwach, 2007
My child helps me create shopping or grocery lists.	Typical parental behavior among low-income African American families.	Elish-Piper, 1997

I have my child draw and/or write stories.	Typical parental behavior among low-income African American families.	Compton-Lilly, 2004, 2011
My child should write without worrying about spelling.	Provide insight into how parents' beliefs relate to other research-based best practices. Since parental beliefs are likely to guide behaviors, this question provides further insight into the home literacy environment.	Hindman & Wasik, 2008
My child should worry about spelling when he or she is learning how to write.	Provide insight into how parents' beliefs relate to other research-based best practices. Since parental beliefs are likely to guide behaviors, this question provides further insight into the home literacy environment.	Hindman & Wasik, 2008
My child sees me writing (handwriting or typing) at home.	Typical parental behavior among low-income African American families.	Compton-Lilly, 2004, 2011
I write with my child.	Typical parental behavior among low-income African American families.	Lynch, 2012; Maduekwe & Adoesun, 2010

I turn the closed caption on while watching television and read it with or to my child.	Typical parental behavior among low-income African American families.	Compton-Lilly, 2004, 2011
I take my child to the library to read or get a book.	This parental behavior is strong predictor of early literacy skills. Typical parental behavior among low-income African American families.	Bracken and Fischel, 2008; Compton-Lilly, 2004, 2011; Maduekwe & Adoesun, 2010
My child plays reading and/or writing games/programs on the computer at home or the library.	This parental behavior is strong predictor of early literacy skills. Typical parental behavior among low-income African American families.	Bracken and Fischel, 2008; Compton-Lilly, 2004, 2011; Maduekwe & Adoesun, 2010
My child should learn letter names by singing the ABC song.	Typical parental behavior among low-income African American families.	Compton-Lilly, 2004; Hindman & Wasik, 2008; Lynch, 2012
I and/or my child sing the ABC song.	Typical parental behavior among low-income African American families.	Compton-Lilly, 2004
I re-read things with my child several times.	Typical parental behavior among low-income African American families.	Compton-Lilly, 2004, 2011
My child needs plenty of drill and practice, like using flash cards, to learn sounds of letters.	Typical parental behavior among low-income African American families.	Compton-Lilly, 2004, 2011; Hindman & Wasik, 2008
My child uses flash cards to help learn new words.	Typical parental behavior among low-income African American families.	Compton-Lilly, 2004, 2011

I create spelling, learning, and/or reading games for my child.	Typical parental behavior among low-income African American families.	Compton-Lilly, 2004; Elish-Piper, 1997
My child and I read every paper he or she brings home together.	Typical parental behavior among low-income African American families.	Compton-Lilly, 2012
My child and I read the road signs on the road together.	Typical parental behavior among low-income African American families.	Compton-Lilly, 2012; Lynch, 2012; McCarthey, 1997
I point to words when reading to my child.	Typical parental behavior among low-income African American families.	Compton-Lilly, 2012
My child reads with his or her siblings, family members, and/or friends at home.	This parental behavior increases the children's motivation to learn and competence level. This parental behavior is strong predictor of early literacy skills. Typical parental behavior among low-income African American families.	Baker and Schner, 2002; Bracken and Fischel, 2008; Compton-Lilly, 2009, 2012; Dudley-Marling, 2009; Heath, 1983
Age you began reading to your child	This parental behavior is strong predictor of early literacy skills.	Bracken & Fischel, 2008
Duration of reading time with child	This parental behavior is strong predictor of early literacy skills.	Bracken & Fischel, 2008

Appendix C

Table C

Rationale and References for Survey Questions Regarding Parental Self-Efficacy

Question on Survey	Reason	References
I am comfortable helping my child with school work at home.	High parental self-efficacy results in effective parenting techniques, development of achievement goals. Parents are more involved in learning activities and provide stimulating learning environments. Effacious parents are also less stressed and better able to deal with parenting.	Bruckman & Blanton, 2003; Green, Walker, Hoover-Dempsey, & Sandler, 2007; Maduekwe & Adoesun, 2010; Raikes & Thompson, 2005
I believe my child does well in school because of what I do for him or her at home.	High parental self-efficacy results in effective parenting techniques, development of achievement goals. Parents are more involved in learning activities and provide stimulating learning environments. Effacious parents are also less stressed and better able to deal with parenting.	Bruckman & Blanton, 2003; Green, Walker, Hoover-Dempsey, & Sandler, 2007; Maduekwe & Adoesun, 2010; Raikes & Thompson, 2005

I do a good job at helping my child learn.	High parental self-efficacy results in effective parenting techniques, development of achievement goals. Parents are more involved in learning activities and provide stimulating learning environments. Effacious parents are also less stressed and better able to deal with parenting.	Astone & McLanahan, 1991; Bruckman & Blanton, 2003; Green, Walker, Hoover-Dempsey, & Sandler, 2007; Raikes & Thompson, 2005; Wentzel, 1998
I am confident in my reading skills (pronouncing words, asking and answering questions, understanding what I read)	High parental self-efficacy results in effective parenting techniques, development of achievement goals. Parents are more involved in learning activities and provide stimulating learning environments. Effacious parents are also less stressed and better able to deal with parenting.	Bruckman & Blanton, 2003; Green, Walker, Hoover-Dempsey, & Sandler, 2007; Maduekwe & Adoesun, 2010; Raikes & Thompson, 2005
It is my job to help my child with his or her school work at home.	This is a typical belief among low-income African American parents.	Compton-Lilly, 2004, 2009, 2011, & 2012; Dudley-Marling, 2009; Samaras & Wilson, 1999

I am comfortable helping my child with school work at home.	High parental self-efficacy results in effective parenting techniques, development of achievement goals. Parents are more involved in learning activities and provide stimulating learning environments. Effacious parents are also less stressed and better able to deal with parenting.	Bruckman & Blanton, 2003; Green, Walker, Hoover-Dempsey, & Sandler, 2007; Maduekwe & Adoesun, 2010; Raikes & Thompson, 2005
I believe my child does well in school because of what I do for him or her at home.	High parental self-efficacy results in effective parenting techniques, development of achievement goals. Parents are more involved in learning activities and provide stimulating learning environments. Effacious parents are also less stressed and better able to deal with parenting.	Bruckman & Blanton, 2003; Green, Walker, Hoover-Dempsey, & Sandler, 2007; Raikes & Thompson, 2005; Wentzel, 1998

I do a good job at helping my child learn.	High parental self-efficacy results in effective parenting techniques, development of achievement goals. Parents are more involved in learning activities and provide stimulating learning environments. Effacious parents are also less stressed and better able to deal with parenting.	Astone & McLanahan, 1991; Bruckman & Blanton, 2003; Green, Walker, Hoover-Dempsey, & Sandler, 2007; Raikes & Thompson, 2005; Wentzel, 1998
I am confident in my reading skills (pronouncing words, asking and answering questions, understanding what I read)	High parental self-efficacy results in effective parenting techniques, development of achievement goals. Parents are more involved in learning activities and provide stimulating learning environments. Effacious parents are also less stressed and better able to deal with parenting.	Bruckman & Blanton, 2003; Green, Walker, Hoover-Dempsey, & Sandler, 2007; Raikes & Thompson, 2005
It is my job to help my child with his or her school work at home.	This is a typical belief among low-income African American parents.	Compton-Lilly, 2004, 2009, 2011, & 2012; Dudley-Marling, 2009; Samaras & Wilson, 1999

Appendix D

Survey for Cognitive Interview

Parent Behavior and Belief Survey

Before beginning the survey, please choose one or more categories that best describes your ethnicity:

_____Black, non-Hispanic
_____Hispanic
_____Asian/Pacific Islander
_____American Indian/Alaska Native
_____White, non-Hispanic Other

Part 1 - Behaviors

Directions: Please circle the number that represents how likely the following behaviors with your Early Head Start or Head Start child would occur outside of school. (1 = Not Likely; 5 = Very Likely)

	Not Likely	←		→	**Very Likely**
1. I talk to my child about the story every time I read to him or her.	1	2	3	4	5
2. I encourage my child to listen and/or sing songs every day.	1	2	3	4	5
3. I tell my child stories about our family and/or friends every day.	1	2	3	4	5
4. I make sure my child is read to by someone every day.	1	2	3	4	5
5. I explain new words and what they mean to my child every day.	1	2	3	4	5
6. I encourage my child to write stories or draw pictures of a story every day.	1	2	3	4	5

7. I have my child play learning/reading games every day (ex. flash cards, computer games, cell phone learning games or apps).	1	2	3	4	5
8. I read the road and store signs with my child every time we go somewhere.	1	2	3	4	5
9. I point to words every time I read to my child.	1	2	3	4	5
10. I make sure to have a positive attitude every time I talk to my child about their day at school.	1	2	3	4	5
11. I explain to my child how important it is to get an education every day.	1	2	3	4	5
12. I make sure to encourage my child to do his or her best in school every morning.	1	2	3	4	5
13. I encourage my child to question and explore new things every day.	1	2	3	4	5

Part 2 - Beliefs

Directions: Please circle the number that represents how you feel about the following statements about your Early Head Start or Head Start child. (1 = Strongly Disagree; 5 = Strongly Agree)

	Strongly Disagree	⟵	⟶		**Strongly Agree**
1. I sometimes get nervous when my child asks me to help him or her learn how to read or write.	1	2	3	4	5

2. When my child does well in school, it is because of what I do for him or her at home.	1	2	3	4	5
3. I am confident in my reading skills (pronouncing words, asking and answering questions, understanding what I read).	1	2	3	4	5
4. What my child does outside of school can affect how well he or she does in school.	1	2	3	4	5
5. I expect my child to go to college or technical college one day.	1	2	3	4	5
6. I am confident my child will do well in school.	1	2	3	4	5
7. It is important to ask my child about his or her day at school every day.	1	2	3	4	5
8. I am just as important as my child's teacher when it comes to helping my child learn.	1	2	3	4	5
9. My child should be read to many times in order to do well in reading.	1	2	3	4	5
10. My child should wait until you are finished reading to ask questions or give his or her thoughts.	1	2	3	4	5
11. My child can practice reading newspapers, recipes, church materials, and/or magazines and still do well in reading.	1	2	3	4	5

12. My child should not practice pretend writing and/or drawing when he or she is learning how to write letters and/or stories.	1	2	3	4	5
13. My child can do well in reading without learning the meanings of a lot of words.	1	2	3	4	5
14. My child should see me read and/or write every day.	1	2	3	4	5
15. My child needs lots of practice, like using flash cards every day, to learn sounds of letters or new words.	1	2	3	4	5

Appendix E

Cover Letter after Cognitive Interviews

Parent Behavior

and

Belief Survey

Directions:

1. Read and sign the two-page Pilot Survey Consent Form if you are willing to take part in this survey.
2. Complete the two-page survey about your behaviors and beliefs concerning your Early Head Start or Head Start child or children.
3. Place the signed consent form and completed survey in the envelope provided.
4. Seal the envelope and sign your name over the seal.
5. Return the sealed and signed envelope to your child's teacher to receive a free children's book.

Your participation is strictly confidential, and the researcher will be the only person who sees the information you provide on the documents.

Your participation will help create a survey Early Head Start and Head Start centers can use to better understand your behaviors and beliefs at home, so they can make better connections between home and school experiences for you and your child.

Rebecca Short - Columbus State University
800 GSW Drive
Americus, GA 31709
(229)869-4330

Appendix F

Parent Survey after Cognitive Interviews

Parent Behavior and Belief Survey

Before beginning the survey, please check one or more categories that best describes your ethinicity:

_____Black, non-Hispanic
_____Hispanic
_____Asian/Pacific Islander
_____American Indian/Alaska Native
_____White, non-Hispanic Other
_____ Other, ______________________

Part 1 - Behaviors

Directions: Please circle the number that represents how likely you are to perform the following behaviors with your Early Head Start or Head Start child outside of school. (1 = Not Likely; 5 = Very Likely)

	Not Likely	⟷			**Very Likely**
1. When I read to my child, I encourage him or her to talk to me about what we are reading.	1	2	3	4	5
2. I encourage my child to listen and/or sing songs every day.	1	2	3	4	5
3. I tell my child stories about our family and/or friends every day.	1	2	3	4	5
4. I make sure my child reads or is read to every day.	1	2	3	4	5

5. I explain new words and what they mean to my child every day.	1	2	3	4	5
6. I encourage my child to draw and/or write stories every day.	1	2	3	4	5
7. I have my child play learning/reading games every day (ex. flash cards, computer games, cell phone learning games or apps).	1	2	3	4	5
8. I read the road and store signs with my child every time we go somewhere.	1	2	3	4	5
9. I point to words every time I read to my child.	1	2	3	4	5
10. I make sure to smile every time I talk to my child about their day at school.	1	2	3	4	5
11. I explain to my child how important school is every day.	1	2	3	4	5
12. I make sure to encourage my child to do his or her best in school every morning.	1	2	3	4	5
13. I encourage my child to question and explore new things every day.	1	2	3	4	5

Part 2 - Beliefs

Directions: Please circle the number that represents how you feel about the following statements about your Early Head Start or Head Start child. (1 = Strongly Disagree; 5 = Strongly Agree)

	Strongly Disagree	⟷			**Strongly Agree**
1. My child should hear many stories in order to	1	2	3	4	5

become a good reader.					
2. My child should not talk or ask questions about the story while I am reading a book to him or her.	1	2	3	4	5
3. My child should not waste time reading newspapers, recipes, church materials, and/or magazines when he or she is learning how to read.	1	2	3	4	5
4. My child should not waste time pretend writing and/or drawing when he or she is learning how to write.	1	2	3	4	5
5. My child can become a good reader without learning the meanings of a lot of words.	1	2	3	4	5
6. My child should worry about spelling when learning how to write.	1	2	3	4	5
7. My child should see me read and/or write every day.	1	2	3	4	5
8. My child needs plenty of drill and practice, like using flash cards, to learn sounds of letters or new words.	1	2	3	4	5
9. I get nervous when my child asks me to help him or her learn how to read or write.	1	2	3	4	5
10. When my child does well in school, it is because of what I do for him or her at home.	1	2	3	4	5
11. I am proud of how well I help my child at home.	1	2	3	4	5
12. I am confident in my reading skills	1	2	3	4	5

(pronouncing words, asking and answering questions, understanding what I read).					
13. What my child does outside of school can affect how well he or she does in school.	1	2	3	4	5
14. I expect my child to go to college or technical school one day.	1	2	3	4	5
15. I am confident my child will do well in school.	1	2	3	4	5
16. It is important to ask my child about his or her day at school every day.	1	2	3	4	5
17. I am just as important as my child’s teacher when it comes to helping my child learn.	1	2	3	4	5

Appendix G

Cover Letter after the Expert Reviews

Parent Behavior and Belief Survey

About Schooling, Literacy, and Self-Efficacy

Directions:

1. Read and sign the two-page Pilot Survey Consent Form if you are willing to take part in this survey.
2. Complete the two-page survey about your behaviors and beliefs concerning your Early Head Start or Head Start child or children.
3. Place the signed consent form and completed survey in the envelope provided.
4. Seal the envelope and sign your name over the seal.
5. Return the sealed and signed envelope to your child's teacher to receive a free children's book.

Taking part in this survey is strictly confidential, and the researcher will be the only person who sees the information you provide.

Taking part in this survey will help create survey Early Head Start and Head Start centers can use to better understand your behaviors and beliefs at home, so they can make better connections between home life and school activities for you and your child.

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Appendix H

Parent Survey after Expert Reviews

Parent Belief and Behavior Survey: Schooling, Literacy, and Self-Efficacy

Part 1- Beliefs

Directions: Please circle the number ranging from 1 (strongly disagree) to 5 (strongly agree) that represents how you feel about the following statements about your Early Head Start or Head Start child. For example, if you choose "2," then you might just disagree with the statement; however, not as strongly as you do if you chose "1." If you choose "4," then you might just agree with the statement; however not as strongly as you do if you chose "5." If you choose "3," then you might have neutral feelings about the statement.

	Strongly Disagree	⟵		⟶	**Strongly Agree**
1. I sometimes get nervous when my child asks me to help him or her learn how to read or write.	1	2	3	4	5
2. When my child does well in school, it is because of what I do for him or her at home.	1	2	3	4	5
3. I am confident in my reading skills (pronouncing words, asking and answering questions, understanding what I read).	1	2	3	4	5
4. I am just as important as my child's teacher when it comes to helping my child learn.	1	2	3	4	5
5. I can teach my child.	1	2	3	4	5
6. It is only the teacher's job to help my child learn.	1	2	3	4	5
7. What my child does outside of school can affect how well he or she does in school.	1	2	3	4	5

8. I expect my child to go to college or technical college one day.	1	2	3	4	5
9. I am confident my child will do well in school.	1	2	3	4	5
10. It is important to ask my child about his or her day at school.	1	2	3	4	5
11. It is important for my child to graduate/get a diploma from a college or technical college one day.	1	2	3	4	5
12. It is important to keep up with how my child is doing in school by talking with his or her teacher.	1	2	3	4	5
13. It is important for my child to be read to many times in order to do well in reading.	1	2	3	4	5
14. It is important my child wait until I am finished reading to ask questions or give his or her thoughts.	1	2	3	4	5
15. My child can practice reading newspapers, recipes, church materials, and/or magazines to help him or her do well in learning to read.	1	2	3	4	5
16. It is important my child practice pretend writing and/or drawing when he or she is learning how to write letters and/or stories.	1	2	3	4	5
17. My child can do well in reading without learning the meanings of a lot of words.	1	2	3	4	5
18. It is important my child see me read and/or write every day.	1	2	3	4	5
19. It is important for my child to use flash cards and repetition to learn sounds of letters or new words.	1	2	3	4	5

Part 2 - Behaviors

Directions: Please circle the number ranging from 1 (never) to 5 (always) that represents how likely you are to perform the following behaviors with your Early Head Start or

Head Start child outside of school. For example, if you choose "2," then it might mean you rarely perform the behavior, and if you choose "4," then it might mean you often perform the behavior. If you chose "3," then you might sometimes perform the behavior.

	Never	⟷			**Always**
1. I smile when I talk to my child about their day at school.	1	2	3	4	5
2. I explain to my child how important it is to get an education.	1	2	3	4	5
3. I make sure to encourage my child to do his or her best in school.	1	2	3	4	5
4. I encourage my child to question and explore new things every day.	1	2	3	4	5
5. I help my child with his or her schoolwork.	1	2	3	4	5
6. I tell my child I am proud of him or her.	1	2	3	4	5
7. When I read to my child, I encourage him or her to talk to me about what we are reading.	1	2	3	4	5
8. I encourage my child to listen and/or sing songs every day.	1	2	3	4	5
9. I tell my child stories about our family and/or friends.	1	2	3	4	5
10. I make somebody reads to my child every day.	1	2	3	4	5
11. I explain new words and what they mean to my child.	1	2	3	4	5
12. I encourage my child to write stories or draw pictures of a story.	1	2	3	4	5
13. I have my child play learning/reading games (ex. flash cards, computer games, cell phone learning games or apps).	1	2	3	4	5
14. I read the road and store signs with my child every time we go somewhere.	1	2	3	4	5
15. I point to words every time I read to my child.	1	2	3	4	5

UNDERSTANDING PARENTAL BELIEFS AND BEHAVIORS

Please check one or more categories that best describes your race:

_____Black, non-Hispanic
_____Hispanic
_____Asian/Pacific Islander
_____American Indian/Alaska Native
_____White, non-Hispanic Other
_____ Other, ______________________

Please check how old your Early Head Start and/or Head Start child(ren) are:

_____0 to 11 months
_____1 year
_____2 years
_____3 years
_____4 years

Appendix I

Five Factor-Model Survey

Parent Belief and Behavior Survey: Schooling, Literacy, and Self-Efficacy

Part 1- Beliefs

Directions: Please circle the number ranging from 1 (strongly disagree) to 5 (strongly agree) that represents how you feel about the following statements about your Early Head Start or Head Start child. For example, if you choose "2," then you might just disagree with the statement; however, not as strongly as you do if you chose "1." If you choose "4," then you might just agree with the statement; however not as strongly as you do if you chose "5." If you choose "3," then you might have neutral feelings about the statement.

	Strongly Disagree	⟷			**Strongly Agree**
1. I am confident in my reading skills (pronouncing words, asking and answering questions, understanding what I read).	1	2	3	4	5
2. I am just as important as my child's teacher when it comes to helping my child learn.	1	2	3	4	5
3. I can teach my child.	1	2	3	4	5
4. I expect my child to go to college or technical college one day.	1	2	3	4	5
5. I am confident my child will do well in school.	1	2	3	4	5
6. It is important for my child to graduate/get a diploma from a college or technical college one day.	1	2	3	4	5
7. It is important to keep up with how my child is doing in school by talking with his or her teacher.	1	2	3	4	5

8. My child can practice reading newspapers, recipes, church materials, and/or magazines to help him or her do well in learning to read.	1	2	3	4	5
9. It is important my child practice pretend writing and/or drawing when he or she is learning how to write letters and/or stories.	1	2	3	4	5
10. It is important my child see me read and/or write every day.	1	2	3	4	5
11. It is important for my child to use flash cards and repetition to learn sounds of letters or new words.	1	2	3	4	5

Part 2 - Behaviors

Directions: Please circle the number ranging from 1 (never) to 5 (always) that represents how likely you are to perform the following behaviors with your Early Head Start or Head Start child outside of school. For example, if you choose “2,” then it might mean you rarely perform the behavior, and if you choose “4,” then it might mean you often perform the behavior. If you chose “3,” then you might sometimes perform the behavior.

	Never	⟵	⟶		**Always**
1. I explain to my child how important it is to get an education.	1	2	3	4	5
2. I make sure to encourage my child to do his or her best in school.	1	2	3	4	5
3. I encourage my child to question and explore new things every day.	1	2	3	4	5
4. I help my child with his or her schoolwork.	1	2	3	4	5
5. I encourage my child to listen and/or sing songs every day.	1	2	3	4	5
6. I tell my child stories about our family and/or friends.	1	2	3	4	5
7. I explain new words and what they mean to my child.	1	2	3	4	5
8. I have my child play learning/reading games (ex. flash cards, computer games, cell phone learning games or apps)	1	2	3	4	5

9. I read the road and store signs with my child every time we go somewhere.	1	2	3	4	5

Please check one or more categories that best describes your race:

_____Black, non-Hispanic
_____Hispanic
_____Asian/Pacific Islander
_____American Indian/Alaska Native
_____White, non-Hispanic Other
_____ Other, ______________________

Please check how old your Early Head Start and/or Head Start child(ren) are:

_____0 to 11 months
_____1 year
_____2 years
_____3 years
_____4 years

Appendix J

Cover Letter for EHS and HS programs

Parent Behavior and Belief Survey

About Schooling, Literacy, and Self-Efficacy

Directions:

1. Complete the two-page survey about your behaviors and beliefs concerning your Early Head Start or Head Start child or children.
2. Place the completed survey in the envelope provided.
3. Return the envelope to your child’s teacher

Taking part in this survey is strictly confidential and will only been seen by the needed Early Head Start and Head Start staff.

Taking part in this survey will help Early Head Start and Head Start centers better understand your behaviors and beliefs at home, so they can make better connections between home life and school activities for you and your child.

Appendix K

Data Analysis Sheet for Early Head Start and Head Start Programs

Survey Summary Sheet

Directions: Tally the total number of responses for each of the survey items below and place the number in the corresponding boxes.

Self-Efficacy	**1**	**2**	**3**	**4**	**5**
1. I am confident in my reading skills (pronouncing words, asking and answering questions, understanding what I read).					
2. I am just as important as my child's teacher when it comes to helping my child learn.					
3. I can teach my child.					
Total					
Self-efficacy Total (add all totals from above)	**/15**				

Circle Range Total for Self-efficacy: **Low(0 - 5)** **Medium (6 - 10)** **High (11 - 15)**

Schooling Beliefs	**1**	**2**	**3**	**4**	**5**
4. I expect my child to go to college or technical college one day.					
5. I am confident my child will do well in school.					
6. It is important for my child to graduate/get a diploma from a college or technical college one day.					
7. It is important to keep up with how my child is doing in school by talking with his or her teacher.					
Total					
Schooling Beliefs Total (add all totals from above)	**/20**				

Circle Range Total for Schooling Beliefs: **Low (0 - 6)** **Medium (7 - 13)** **High (14 - 20)**

Literacy Beliefs	**1**	**2**	**3**	**4**	**5**
8. My child can practice reading newspapers, recipes, church materials, and/or magazines to help him or her do well in learning to read.					
9. It is important my child practice pretend writing and/or drawing when he or she is learning how to write letters and/or stories.					
10. It is important my child see me read and/or write every day.					
11. It is important for my child to use flash cards and repetition to learn sounds of letters or new words.					
Total					
Literacy Beliefs Total (add all totals from above)	**/20**				

Circle Range Total for Literacy Beliefs: **Low (0 - 6)** **Medium (7 - 13)** **High (14 - 20)**

Schooling Behaviors	**1**	**2**	**3**	**4**	**5**

12. I explain to my child how important it is to get an education.					
13. I make sure to encourage my child to do his or her best in school.					
14. I encourage my child to question and explore new things every day.					
15. I help my child with his or her schoolwork.					
Total					
Schooling Behaviors Total (add all totals from above)	/20				

Circle Range Total for Schooling Behaviors: **Low (0 - 6)** **Medium (7 - 13)** **High (14 - 20)**

Literacy Behaviors	**1**	**2**	**3**	**4**	**5**
16. I encourage my child to listen and/or sing songs every day.					
17. I tell my child stories about our family and/or friends.					
18. I explain new words and what they mean to my child.					
19. I have my child play learning/reading games (ex. flash cards, computer games, cell phone learning games or apps)					
20. I read the road and store signs with my child every time we go somewhere.					
Total					
Literacy Beliefs Total (add all totals from above)	/25				

Circle Range Total for Literacy Behaviors: **Low (0 - 7)** **Medium (8 - 17)** **High (18 - 25)**

Appendix L

Data Analysis Sheet for Early Head Start and Head Start Programs

Directions: Use the following chart to determine how parents' answers on the survey are related to academic achievement, motivation, attitude levels, etc.

Self-efficacy	
1. I am confident in my reading skills (pronouncing words, asking and answering questions, understanding what I read).	High scores typically illustrate parents who are involved in learning activities within the home and provide stimulating learning environments. High scores also reveal parents who are less stressed and better able to deal with tasks of parenting.
2. I am just as important as my child's teacher when it comes to helping my child learn.	High scores typically illustrate parents who are involved in learning activities within the home and provide stimulating learning environments. High scores also reveal parents who are less stressed and better able to deal with tasks of parenting.
3. I can teach my child.	High scores typically illustrate parents who are involved in learning activities within the home and provide stimulating learning environments. High scores also reveal parents who are less stressed and better able to deal with tasks of parenting.
Schooling Beliefs	
4. I expect my child to go to college or technical college one day.	High scores can illustrate parents who have high expectations for their children; therefore, typically resulting in children who are more interested in school, succeed academically, and strive to further their education.
5. I am confident my child will do well in school.	High scores can illustrate parents who believe in their children's abilities; therefore, typically resulting in high academic achievement among their children.
6. It is important for my child to graduate/get a diploma from a college or technical college one day.	High scores in this parental belief can result in children who are more interested in school, succeed academically, and strive to further their education.
7. It is important to keep up with how my child is doing in school by talking with his or her teacher.	This is a typical belief of low-income African American parents, and high scores can be linked to a child's positive attitude toward school and high academic achievement.
Literacy Beliefs	

8. My child can practice reading newspapers, recipes, church materials, and/or magazines to help him or her do well in learning to read.	High scores can be related to achievement in listening skills language and early literacy skills. This is also typical reading materials low-income African American parents utilize in the home.
9. It is important my child practice pretend writing and/or drawing when he or she is learning how to write letters and/or stories.	This item can provide insight into the type of behaviors parents will perform. Typically, parents who strongly agree with this belief will perform this behavior.
10. It is important my child see me read and/or write every day.	High scores can reveal children who highly motivated in literacy. Typical parental belief among low-income African American families.
11. It is important for my child to use flash cards and repetition to learn sounds of letters or new words.	This item can provide insight into the type of behaviors parents will perform. Typically, parents who strongly agree with this belief will perform this behavior. This is also a typical parental belief among low-income African American families.

Schooling Behaviors	
1. I explain to my child how important it is to get an education.	High scores can reveal children who will perform well academically and have positive attitudes toward school. This behavior is also typical of low-income African American parents
2. I make sure to encourage my child to do his or her best in school.	High scores can reveal children who set academic goals, persevere through school, excel academically, and/or attend college.
3. I encourage my child to question and explore new things every day.	High scores can reveal children who are more independent and have positive attitudes.
4. I help my child with his or her schoolwork.	High scores can reveal children who will perform well academically and have positive attitudes toward school. This behavior is also typical of low-income African American parents
Literacy Behaviors	
5. I encourage my child to listen and/or sing songs every day.	High scores can reveal this is a typical behavior among low-income African and should be utilized in the EHS and HS curriculum.
6. I tell my child stories about our family and/or friends.	High scores can reveal this is a typical behavior among low-income African and should be utilized in the EHS and HS curriculum. Also, High scores can reveal children who set academic goals, persevere through school, excel academically, and/or attend college.
7. I explain new words and what they mean to my child.	High scores can reveal this is a typical behavior among low-income African and should be utilized in the EHS and HS curriculum. Also, high scores can reveal children with strong early literacy skills and who will succeed later in school.
8. I have my child play learning/reading games (ex.	High scores can reveal this is a typical behavior among

flash cards, computer games, cell phone learning games or apps)	low-income African and should be utilized in the EHS and HS curriculum. Also, high scores can reveal children with strong early literacy skills.
9. I read the road and store signs with my child every time we go somewhere.	High scores can reveal this is a typical behavior among low-income African and should be utilized in the EHS and HS curriculum.